ORDER NO. MKE0605853CE

Service Manual

Multi Media Display

PbF
Solder Lead free

PT-52LCX66-K
PT-56LCX16-K
PT-61LCX66-K

⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 Safety Precautions

1.1. General Guidelines

1. For continued safety, no modification of any circuit should be attempted.
2. Disconnect AC Plug before disassembling this unit.
3. It is advisable to use an isolation transformer in the AC supply before servicing.
4. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
5. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers, shield, and isolation R-C combinations etc. are properly installed.
6. After servicing, be sure to restore the wires, leads, insulation barriers, shields, etc.
7. After servicing, make the leakage current checks to prevent the customer from being exposed to shock hazards.

Caution:

Use a separate Isolation Transformer for this unit when servicing.

1.2. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. For physically operated power switches, turn power on. Otherwise skip step 2.
3. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the receiver, such as screwheads, connectors, etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1 MΩ and 12 MΩ. When the exposed metal does not have a return path to the chassis, the reading must be infinity.

1.3. Leakage Current Hot Check

1. Plug the AC cord directly into the AC outlet.

   Do not use an isolation transformer for this check.
2. Connect "A" to exposed metallic part on the set. And connect "B" to a good earth ground, as shown in Figure 1.
3. Use an AC voltmeter, with 1 kΩ/V or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.25 V RMS.

   A leakage current tester (Simpson Model 228 equivalent) may be used to make the hot checks. Leakage current must not exceed 1/2 mA. In case a measurement is outside of the limits specified, there is a possibility of shock hazard, and the receiver should be repaired and rechecked before it is returned to the customer.

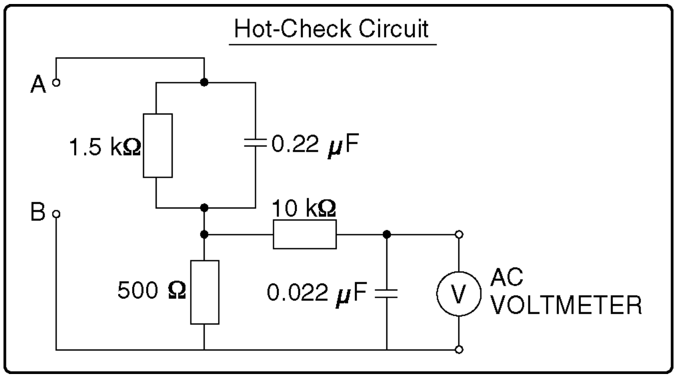


Figure 1

1.4. UV-Precaution

1. Be sure to disconnect the AC Plug when replacing the lamp.
2. Since the lamp reaches a very high temperature during its operation, wait until it has completely cooled off when replacing the Lamp Unit.
3. The lamp emits small amounts of UV-Radiation.

   Avoid direct-eye contact by covering the Lamp and wearing the UV protective glasses.
4. The high pressure lamp involves a risk of explosion.

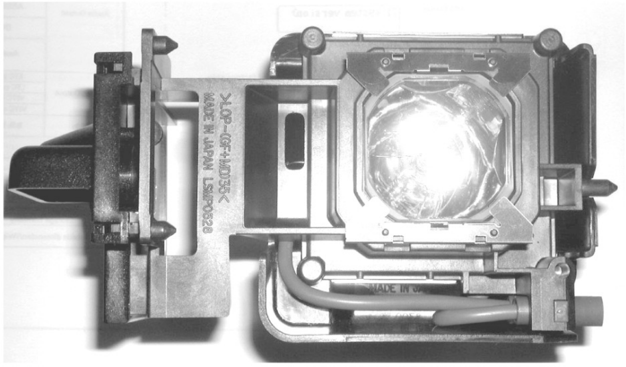


Figure 2

This product has a High Intensity Discharge (HID) lamp that contains a small amount of mercury. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <http://www.eiae.org.>

2 Warning

2.1. Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

   CAUTION :

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

3 Service Navigation

3.1. Introduction

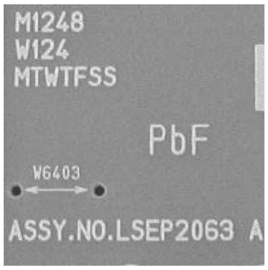
This service manual contains technical information which will allow service personnel´s to understand and service this model. Please place orders using the parts list and not the drawing reference numbers.

If the circuit is changed or modified, this information will be followed by supplement service manual to be filed with original service manual.

3.2. About Lead Free Solder (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Printed case

CAUTION:

- **Pb free solder has a higher melting point than standard solder;
Typically the melting point is 50 °F - 70 °F (30 °C - 40 °C) higher.
Please use a soldering iron with temperature control and adjust it to 700 °F±20 °F (370 °C± 10 °C).
In case of using high temperature soldering iron, please be carefull not to heat too long.**
- **Pb free solder will tend to splash when heated too high (about 1100 °F/600 °C).**
- **All products with the printed circuit board with PbF stamp or printing must be serviced with lead free solder.
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.**

Recommendations

Recommended lead free solder composition is Sn96.5 Ag3.0 Cu0.5.

4 Specifications

ITEM		SPECIFICATION	1	2	3	4	5	6
Power Source		AC 120 V, 60 Hz	○	○	○	○	○	○
Power Consumption		Power ON: Approx. 190 W (When audio is at maximum) Power OFF: Approx. 0.4 W (When cooling fan is stopped)	○	○	○	○	○	○
LCD panels		0.7″ Poly silicon TFT LCD panel × 3 921 600 (1 280 × 720) stripe pixels × 3 panels (16:9)	○	○	○	○	○	○
Display		52-inch, 16 : 9 aspect ratio	○	–	–	○	–	–
		56-inch, 16 : 9 aspect ratio	–	○	–	–	○	–
		61-inch, 16 : 9 aspect ratio	–	–	○	–	–	○
Speaker		2 Speakers 20 W [10 W + 10 W] (10 % THD)	○	○	○	○	○	○
HID Lamp		100 W HID (High Intensity Discharge) Lamp	○	○	○	○	○	○
Channel Capability (Digital/Analog)		VHF/UHF 2-69 Cable 1-135	○	○	○	○	○	○
Input Terminals	PC INPUT	RGB analog 0.7 Vp-p (75 Ω) (D-SUB 15P) AUDIO 0.5 Vrms (M3 Stereo mini Pin Jack)	○	○	○	○	○	○
	AV INPUT 1-3	VIDEO 1.0 Vp-p (75 Ω) (RCA Pin Jack) S-VIDEO Y: 1 Vp-p (75 Ω), C: 0.286 Vp-p (75 Ω) (Mini DIN 4 pin) AUDIO L-R 0.5 Vrms (RCA Pin Jack × 2)	○	○	○	○	○	○
	COMPONENT VIDEO INPUT 1-2	Y 1.0 Vp-p (with sync) (75 Ω) (Pin Jack) PB / PR ± 0.35 Vp-p (75 Ω) (Pin Jack × 2) AUDIO L-R 0.5 Vrms (RCA Pin Jack × 2)	○	○	○	○	○	○
	HDMI	HDMI type A Connector AUDIO L-R 0.5 Vrms (RCA Pin Jack Type × 2)	○	○	○	–	–	–
	HDMI 1-2	HDMI type A Connector AUDIO L-R 0.5 Vrms (RCA Pin Jack Type × 2)	–	–	–	○	○	○
SD Card slot		SD Card (8 MB/ 16 MB/ 32 MB/ 64 MB/ 128 MB/ 256 MB/ 512 MB/ 1 GB/ 2 GB (Maximum))	○	○	○	○	○	○
Output signals (AV OUT)		VIDEO 1.0 Vp-p (75 Ω) (RCA Pin Jack) AUDIO L-R 0.5 Vrms (RCA Pin Jack × 2)	○	○	○	○	○	○
Dimensions (W × H × D)		1 232 mm (W) × 867 mm (H) × 420 mm (D) 48-1/2″ (W) × 34-1/8″ (H) × 16-9/16″ (D)	○	–	–	○	–	–
		1 321 mm (W) × 925 mm (H) × 446 mm (D) 52″ (W) × 36-7/16″ (H) × 17-9/16″ (D)	–	○	–	–	○	–
		1 431 mm (W) × 999 mm (H) × 479 mm (D) 56-5/16″ (W) × 39-5/16″ (H) × 18-7/8″ (D)	–	–	○	–	–	○
Weight (Mass)		31 kg (68 lbs.) Net	○	–	–	○	–	–
		33 kg (73 lbs.) Net	–	○	–	–	○	–
		35 kg (77 lbs.) Net	–	–	○	–	–	○
Operating conditions		Temperature : 0 ˚C – 35 ˚C (32 ˚F - 95 ˚F) Humidity : 20 % – 80 % (non-condensing)	○	○	○	○	○	○
Solder		**This model uses lead free solder (PbF).**	○	○	○	○	○	○

1. - - - - - - - - - -
2. - - - - - - - - - -
3. - - - - - - - - - -
4. PT-52LCX66-K
5. PT-56LCX16-K
6. PT-61LCX16-K

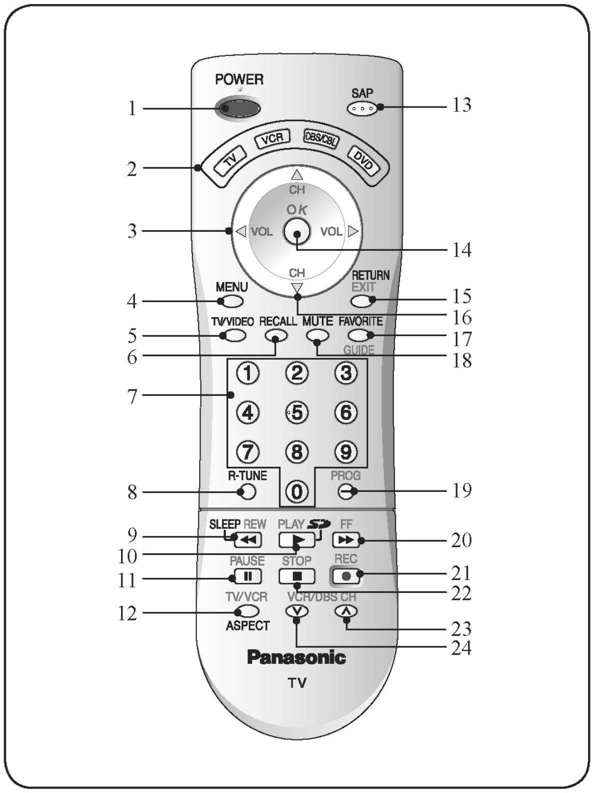
Design and Specifications are subject to change without notice.
Weight and Dimensions shown are approximate.

5 Location of Controls and Components

5.1. Operation Instructions

Location of Controls

Illuminated Remote Control


POWER
SAP
TV
VCR
DBS/CBL
DVD
CH
OK
VOL
VOL
CH
MENU
RETURN
EXIT
TV/VIDEO
RECALL
MUTE
FAVORITE
GUIDE
1
2
3
4
5
6
7
8
9
R-TUNE
0
PROG
SLEEP
REW
PLAY
SD
FF
PAUSE
STOP
REC
TV/VCR
VCR/DBS CH
ASPECT
Panasonic
TV
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24

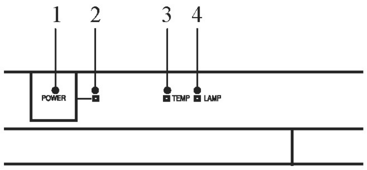
1	**POWER**	Press to turn ON and OFF.
2	**TV**	Sets the remote to control television or digital television.
	VCR, DBS/CBL, DVD	Sets the remote to control other devices.
3	**VOL -+ / ◀▶**	Press to adjust TV sound and to navigate menus.
4	**MENU**	Press to display Main Menu.
5	**TV/VIDEO**	Changes Input source.
6	**RECALL**	Press to display or delete Channel banner.
7	**NUMBER**	Press numeric keypad to select any channel or to make alpha-numeric entries in menus.
8	**R-TUNE**	Press to switch to previously viewed channel or input modes.

9	**SLEEP**	Sets unit to shut itself off after a preselected amount of time.
	REW	While remote is in VCR or DVD mode, press to rewind.
10	**PLAY**	While remote is in VCR or DVD mode, press to play.
	SD	Accesses the Photo Viewer feature.
11	**PAUSE**	While remote is in VCR or DVD mode, press to pause.
12	**TV/VCR**	Press to switch to TV or VCR.
	ASPECT	Changes display aspect ratio.
13	**SAP**	In analog mode, press to access audio modes (Stereo, SAP or Mono). In digital mode, press to access next audio track.
14	**OK**	Press to select menu and sub-menu items.
15	**RETURN**	Press to return one step backward in menus.
	EXIT	Press to exit menus.
16	**CH ▲▼**	Press to change channels and to navigate menus.
17	**FAVORITE**	Press to operate the Favorite channel list function.
18	**MUTE**	Press to mute sound.
19	**PROG**	Press after entering a digital channel to enter a sub-channel.
20	**FF**	While remote is in VCR or DVD mode, press to fast forward.
21	**REC**	While remote is in VCR mode, press to record.
22	**STOP**	While remote is in VCR or DVD mode, press to stop.
23	**VCR/DBS CH ∧**	While remote is in VCR or DBS mode, press to change VCR or DBS channels.
24	**VCR/DBS CH ∨**	

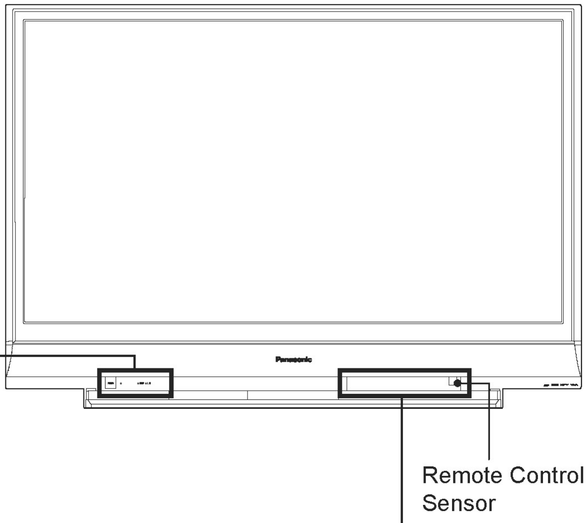
Location of Controls (continued)

Controls and Terminals on the Projection Display

Front View <Model PT-56LCX16 unit shown>

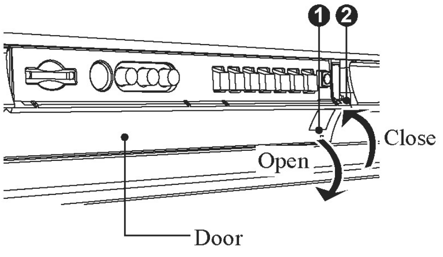

1
2
3
4
POWER
TEMP
LAMP

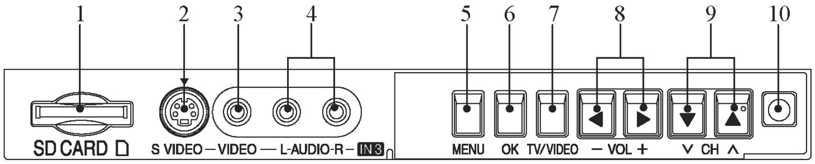
1	**POWER button**	Press to turn ON and OFF. (p. 63, 66)
2	**POWER indicator**	Lights up green when power is ON. (p. 24, 63)
3	**TEMP indicator**	Flashes when unit internal temperature is abnormal. (p. 63)
4	**LAMP indicator**	Lights up or flashes when the lamp unit is malfunctioning. (p. 63)


Panasonic
Remote Control Sensor

Open Door:
Press position ❶, and slide Door open as shown by arrow.

Close Door:
Press position ❷, and slide Door closed as shown by arrow.


❶ ❷
Close
Open
Door

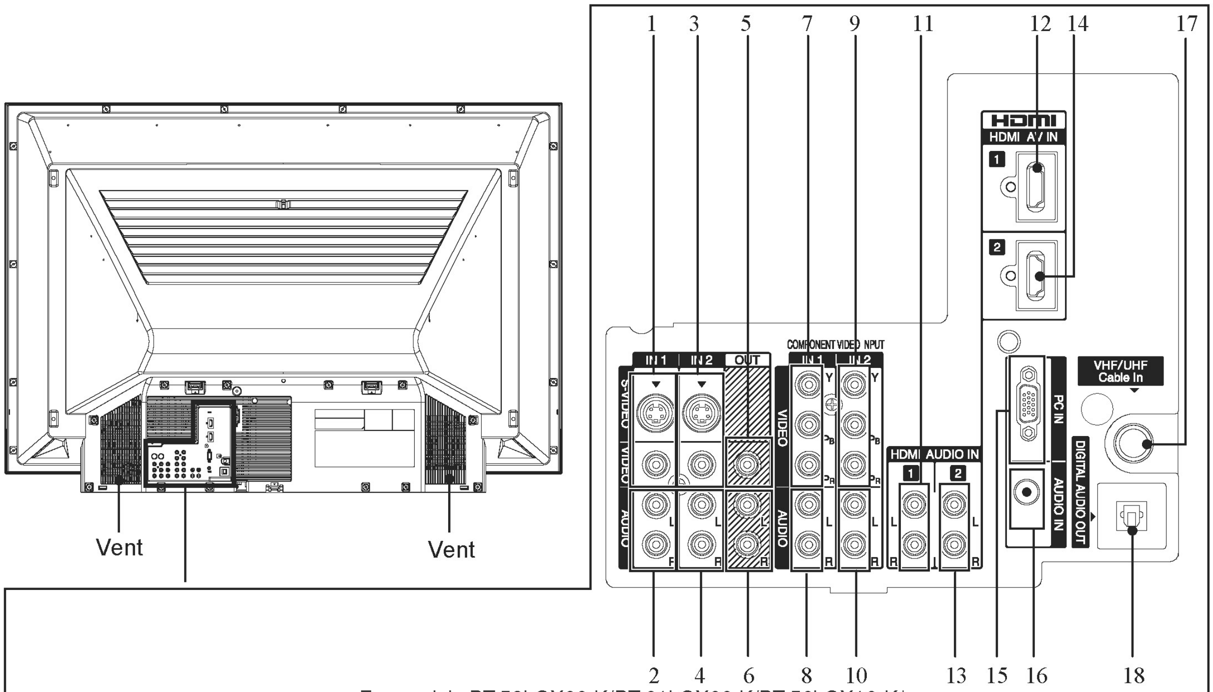

1
2
3
4
5
6
7
8
9
10
SD CARD
S VIDEO — VIDEO — L-AUDIO-R — IN 3
MENU
OK
TV/VIDEO
— VOL +
∨ CH ∧

1	**SD CARD Slot**	Insert SD Card.
2	**S-Video Input Connector 3**	Connect from other component. (Video 3)
3	**Video Input Connector 3**	Connect from other component. (Video 3)
4	**Audio Input Connector 3**	Connect from other component. (Video 3)
5	**MENU***	Press to display Main Menu.

6	**OK***	Press to select menu and sub-menu items.
7	**TV/VIDEO***	Changes Input source.
8	**VOL -+ / ◀▶***	Press to adjust TV sound and to navigate menus.
9	**CH ∨∧ / ▼▲***	Press to change channels and to navigate menus.
10	**Remote Control Sensor**	Receives infrared signal from Remote Control.

* Buttons listed above operate the same as Remote Control buttons of the same name.

Rear View <Model PT-56LCX16 unit shown>


1
3
5
7
9
11
12
14
17
HDMI
HDMI AV IN
1
2
VHF/UHF Cable In
PC IN
DIGITAL AUDIO OUT
AUDIO IN
COMPONENT VIDEO INPUT
IN 1
IN 2
OUT
S-VIDEO
VIDEO
AUDIO
Y
PB
PR
L
R
HDMI AUDIO IN
Vent
Vent
2
4
6
8
10
13
15
16
18

For models PT-52LCX66-K/PT-61LCX66-K/PT-56LCX16-K/

1	**S-Video/Video Input Connector 1**	Connect from other component. (Video 1)
2	**Audio Input Connector 1**	Connect from other component. (Video 1)
3	**S-Video/Video Input Connector 2**	Connect from other component. (Video 2)
4	**Audio Input Connector 2**	Connect from other component. (Video 2)
5	**Video Out Connector**	Output video signal.
6	**Audio Out Connector**	Output audio signal. (Analog)
7	**Component Video Input Connector 1**	Connect from other component. (Component 1)
8	**Audio Input Connector 1**	Connect from other component. (Component 1)
9	**Component Video Input Connector 2**	Connect from other component. (Component 2)

10	**Audio Input Connector 2**		Connect from other component. (Component 2)
11	**HDMI Input Terminal 1**	**Audio 1**	Connect from other component. (HDMI 1)
12		**Audio/ Video 1**	Connect from other component. (HDMI 1)
13	**HDMI Input Terminal 2***	**Audio 2**	Connect from other component. (HDMI 2)
14		**Audio/ Video 2**	Connect from other component. (HDMI 2)
15	**PC (RGB) Input Connector**		Connect from PC. (PC)
16	**Audio Input Connector**		Connect from PC. (PC)
17	**VHF/UHF Cable In**		Input terminal for an antenna or cable box signal.
18	**DIGITAL AUDIO OUT**		Output audio signal (Digital)

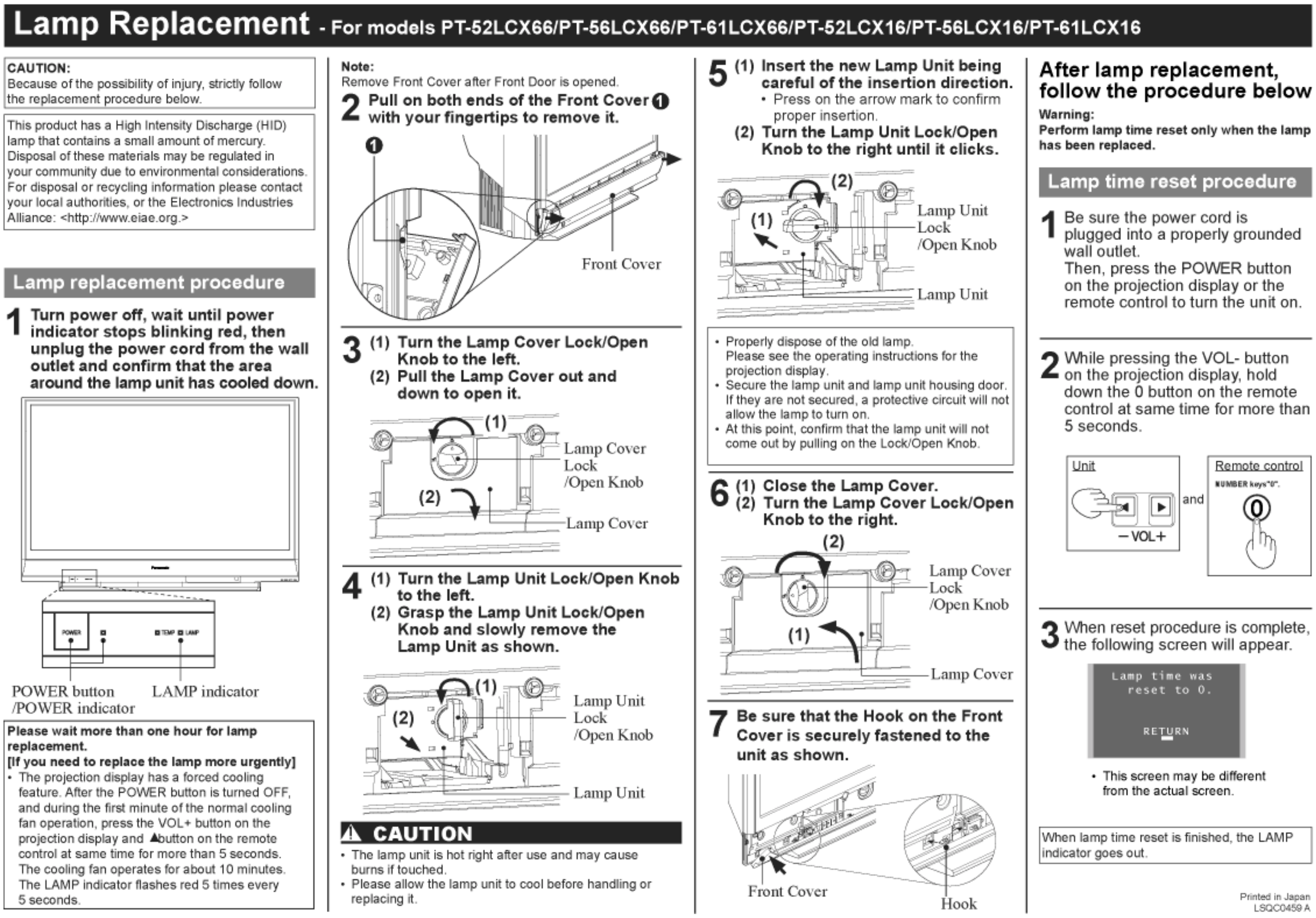
* For models PT-52LCX16/PT-56LCX16

* For models PT-52LCX66-K/PT-61LCX66-K/PT-56LCX16-K

Notes:

- Make sure the vents are not blocked. (This could cause damage.)
- Indication on the back panel may change without notice.

5.2. Replacement of Lamp


POWER button
/POWER indicator
LAMP indicator
POWER
TEMP
LAMP
❶
Front Cover
(1)
(2)
Lamp Cover
Lock
/Open Knob
Lamp Cover
(1)
(2)
Lamp Unit
Lock
/Open Knob
Lamp Unit
(2)
(1)
Lamp Unit
Lock
/Open Knob
Lamp Unit
(2)
(1)
Lamp Cover
Lock
/Open Knob
Lamp Cover
Front Cover
Hook
Unit
− VOL +
and
Remote control
NUMBER keys"0".
0

Lamp Replacement - For models PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-61LCX16

CAUTION:
Because of the possibility of injury, strictly follow the replacement procedure below.

This product has a High Intensity Discharge (HID) lamp that contains a small amount of mercury. Disposal of these materials may be regulated in your community due to environmental considerations. For disposal or recycling information please contact your local authorities, or the Electronics Industries Alliance: <http://www.eiae.org.>

Lamp replacement procedure

1 Turn power off, wait until power indicator stops blinking red, then unplug the power cord from the wall outlet and confirm that the area around the lamp unit has cooled down.

Please wait more than one hour for lamp replacement.
[If you need to replace the lamp more urgently]

- The projection display has a forced cooling feature. After the POWER button is turned OFF, and during the first minute of the normal cooling fan operation, press the VOL+ button on the projection display and ▲button on the remote control at same time for more than 5 seconds. The cooling fan operates for about 10 minutes. The LAMP indicator flashes red 5 times every 5 seconds.

Note:
Remove Front Cover after Front Door is opened.

2 Pull on both ends of the Front Cover ❶ with your fingertips to remove it.

3 (1) Turn the Lamp Cover Lock/Open Knob to the left.
(2) Pull the Lamp Cover out and down to open it.

4 (1) Turn the Lamp Unit Lock/Open Knob to the left.
(2) Grasp the Lamp Unit Lock/Open Knob and slowly remove the Lamp Unit as shown.

⚠ CAUTION

- The lamp unit is hot right after use and may cause burns if touched.
- Please allow the lamp unit to cool before handling or replacing it.

5 (1) Insert the new Lamp Unit being careful of the insertion direction.
- Press on the arrow mark to confirm proper insertion.

(2) Turn the Lamp Unit Lock/Open Knob to the right until it clicks.

- Properly dispose of the old lamp.
  Please see the operating instructions for the projection display.
- Secure the lamp unit and lamp unit housing door. If they are not secured, a protective circuit will not allow the lamp to turn on.
- At this point, confirm that the lamp unit will not come out by pulling on the Lock/Open Knob.

6 (1) Close the Lamp Cover.
(2) Turn the Lamp Cover Lock/Open Knob to the right.

7 Be sure that the Hook on the Front Cover is securely fastened to the unit as shown.

After lamp replacement, follow the procedure below

Warning:
Perform lamp time reset only when the lamp has been replaced.

Lamp time reset procedure

1 Be sure the power cord is plugged into a properly grounded wall outlet.
Then, press the POWER button on the projection display or the remote control to turn the unit on.

2 While pressing the VOL- button on the projection display, hold down the 0 button on the remote control at same time for more than 5 seconds.

3 When reset procedure is complete, the following screen will appear.

```
Lamp time was
 reset to 0.

   RETURN
```

- This screen may be different from the actual screen.

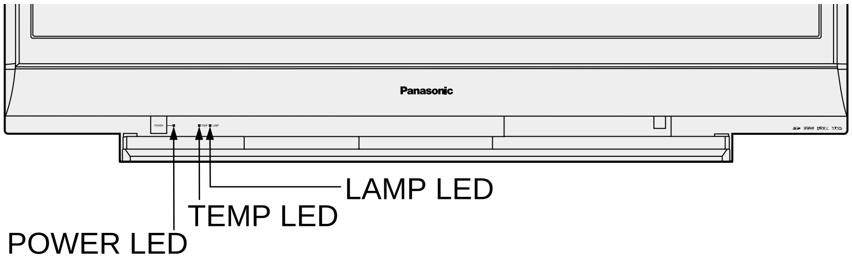
When lamp time reset is finished, the LAMP indicator goes out.

Printed in Japan
LSQC0459 A

6 Service Mode

LED INDICATIONS FOR ERROR CONDITIONS

Each LED indication facilitates finding the cause of an error.
When an error is detected, the Lamp goes off and the LEDs on the front flash.



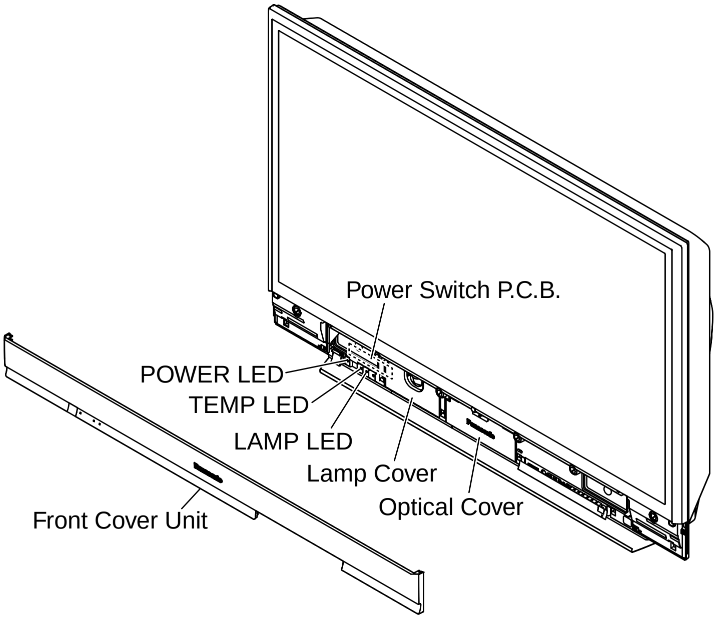
				(Note 4)	(Note 1, 2)	(Note 3)	
Error No.	**Error Information**	**POWER LED flashes orange**	**TEMP LED flashes red**	**LAMP LED flashes red**	**SOS**	**LAMP OFF**	**RESET**
1)	SOS2 (Over voltage/current)	1	-	-	H10SOS2	○	Power ON/OFF
2)	Fan 1, Fan 2 or Fan 3 stops	2	-	-	H20FANST	○	AC ON/OFF
3)	Abnormal voltage (DT+5V line)	3	-	-	H30DT9V	○	Power ON/OFF
4)	IC5001 (GC4Pro) communication error	5	-	-	H50GC4PR	○	AC ON/OFF
5)	Temperature Sensor shorted or open (Thermistor 2 P.C.B.)	-	2	-	-	○	Power ON/OFF
6)	Abnormal temperature (Thermistor 2 P.C.B.)	-	3	-	-	○	
7)	Clogged Air Filter	-	6	-	-	○	Clean Air Filter
8)	Abnormal Lamp	-	-	1	-	○	Power ON/OFF
9)	Iris Mechanism hardware error	-	-	2	-	-	
10)	Iris calibration error	-	-	3	-	-	
11)	Lamp Cover open	7	-	-	(H70LAMCV)	○	
12)	Abnormal voltage (+17V, +9V, +5V line) for LCD Drive P.C.B.	8	-	-	(H80LCDDV)	○	

Note:

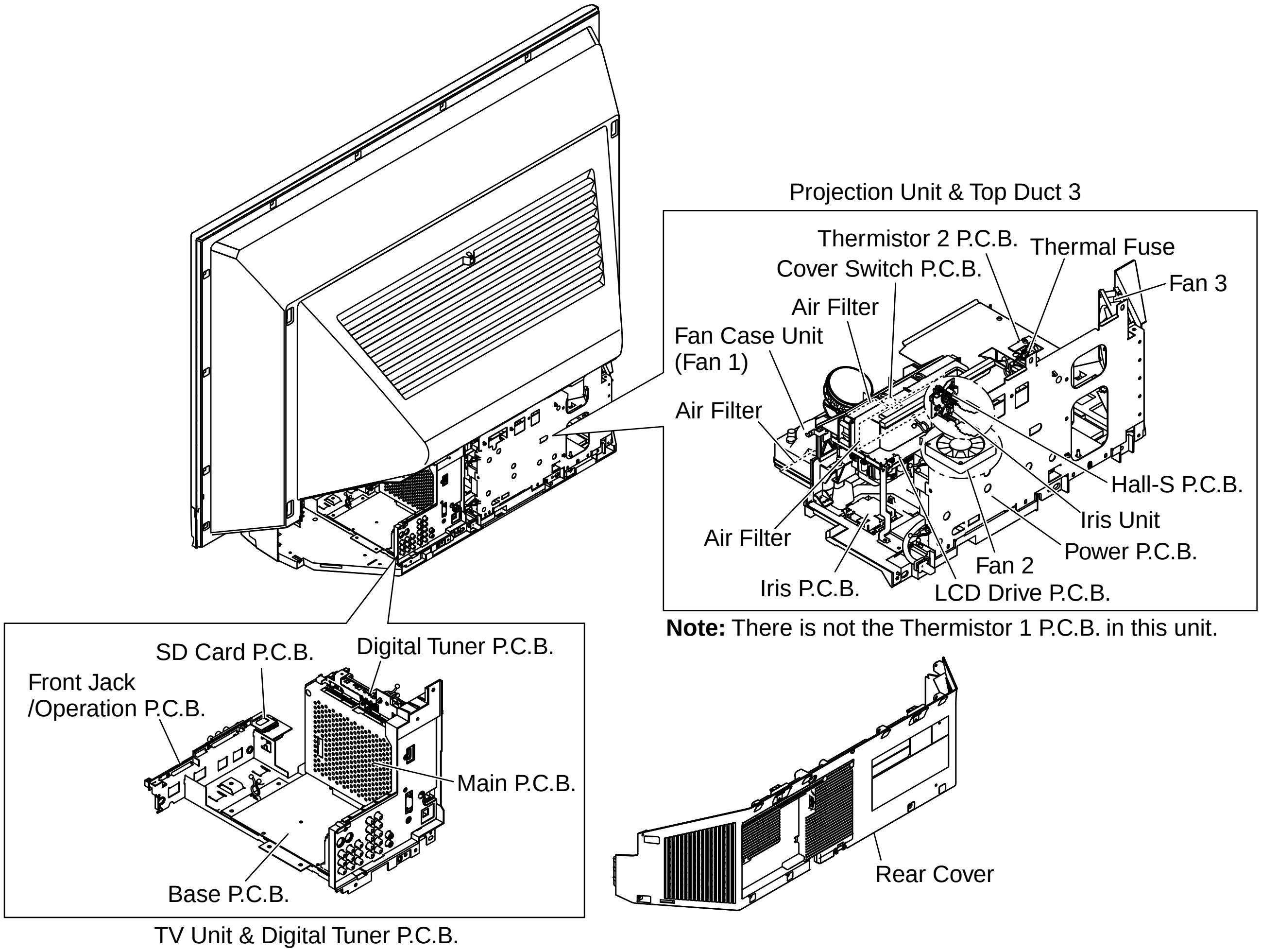
1. The detected SOS Error 1) 2) 3) 4) 11) 12) data will be stored in the EEPROM.
2. SOS (Error) information is displayed in Service Mode (4/4).
3. LAMP OFF: The LED will flash immediately after the Lamp goes off.
4. **In case of Error 9) or 10), the unit will not shut off and Dynamic Iris setting in Adv. adjust of Picture Menu will be changed to "OFF" automatically. When the unit is turned off and turned back on, Dynamic Iris "OFF" setting remains. Lamp LED will not flash as long as Dynamic Iris setting in Adv. adjust of Picture Menu is set to "ON" manually.**

MAIN PARTS LOCATION

<Front View>


Power Switch P.C.B.
POWER LED
TEMP LED
LAMP LED
Lamp Cover
Optical Cover
Front Cover Unit

<Rear View>


Projection Unit & Top Duct 3
Thermistor 2 P.C.B.
Thermal Fuse
Cover Switch P.C.B.
Fan 3
Air Filter
Fan Case Unit
(Fan 1)
Air Filter
Hall-S P.C.B.
Iris Unit
Air Filter
Power P.C.B.
Fan 2
Iris P.C.B.
LCD Drive P.C.B.
SD Card P.C.B.
Digital Tuner P.C.B.
Front Jack
/Operation P.C.B.
Main P.C.B.
Base P.C.B.
TV Unit & Digital Tuner P.C.B.
Rear Cover

Note: There is not the Thermistor 1 P.C.B. in this unit.

SERVICE MODE

In this mode, the following information can be confirmed on the screen:

Service Mode (1/4)
- Current Lamp elapsed time
- The number of times the Lamp has turned on **(For reference only)**
- BKSV number read-out

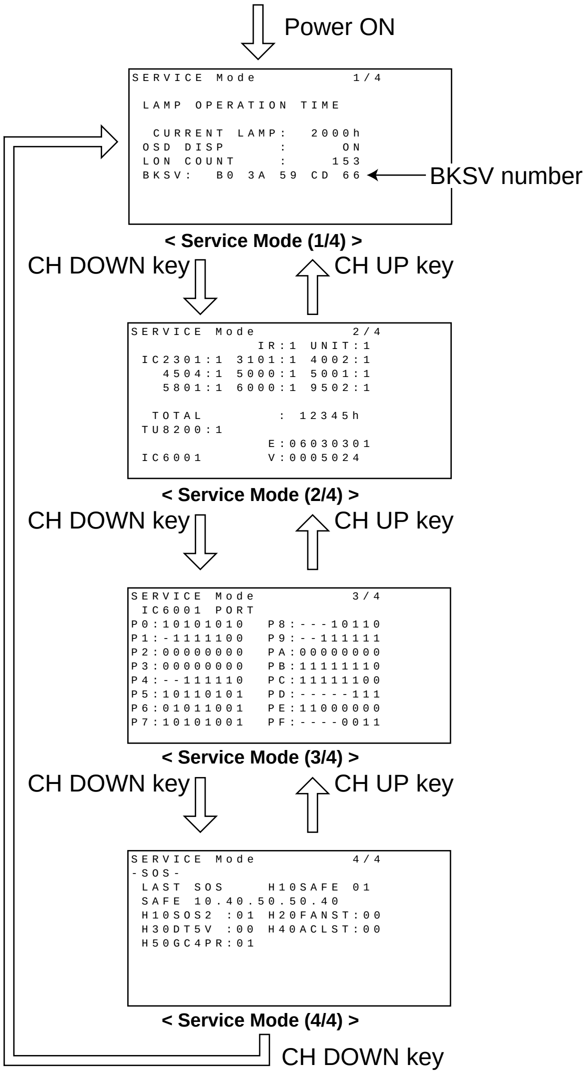
Service Mode (2/4)
- Key detection check
- Communication check for IIC bus on the Main P.C.B.
- Total Lamp elapsed time **(For reference only)**
- Communication check for IIC bus on the Main P.C.B.
- EEPROM IC6000 version and build version **(For reference only)**
- IC6001 software version and build version **(For reference only)**

Service Mode (3/4)
- IC6001 Port information
  Note:
  IC6001: Main Microcontroller on the Main P.C.B.

Service Mode (4/4)
- SOS (Error) information

Service Mode Map

Enter:
VOLUME DOWN button + TV/VIDEO key
(on the front) (on the remote)
(for more than 5 seconds in power off condition)


Power ON
BKSV number
< Service Mode (1/4) >
CH DOWN key
CH UP key
< Service Mode (2/4) >
CH DOWN key
CH UP key
< Service Mode (3/4) >
CH DOWN key
CH UP key
< Service Mode (4/4) >
CH DOWN key

```
SERVICE Mode          1/4

 LAMP OPERATION TIME

  CURRENT LAMP:   2000h
 OSD DISP      :     ON
 LON COUNT     :    153
 BKSV:  B0 3A 59 CD 66
```

```
SERVICE Mode          2/4
             IR:1 UNIT:1
 IC2301:1 3101:1 4002:1
   4504:1 5000:1 5001:1
   5801:1 6000:1 9502:1

  TOTAL         : 12345h
 TU8200:1
              E:06030301
 IC6001       V:0005024
```

```
SERVICE Mode          3/4
 IC6001 PORT
P0:10101010  P8:---10110
P1:-1111100  P9:--111111
P2:00000000  PA:00000000
P3:00000000  PB:11111110
P4:--111110  PC:11111100
P5:10110101  PD:-----111
P6:01011001  PE:11000000
P7:10101001  PF:----0011
```

```
SERVICE Mode          4/4
-SOS-
 LAST SOS    H10SAFE 01
 SAFE 10.40.50.50.40
 H10SOS2 :01 H20FANST:00
 H30DT5V :00 H40ACLST:00
 H50GC4PR:01
```

Exit:
Power OFF.

Fig. 1-1

1. To enter Service Mode, press and hold the VOLUME DOWN button on the unit and the TV/VIDEO key on the remote for more than 5 seconds in power off condition. Service Mode (1/4) will appear.

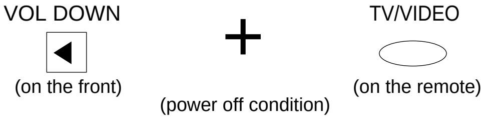
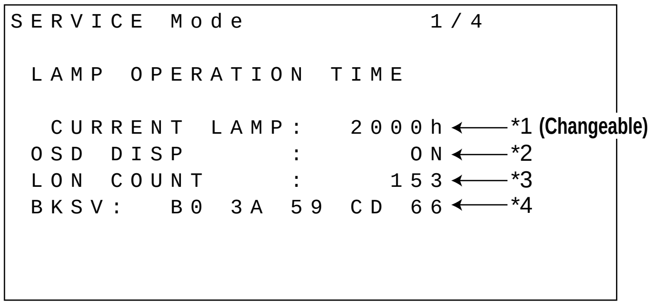


Fig. 1-2



```
SERVICE Mode               1/4

 LAMP OPERATION TIME

  CURRENT LAMP:   2000h ←—*1 (Changeable)
 OSD DISP      :     ON ←—*2
 LON COUNT     :    153 ←—*3
 BKSV:   B0 3A 59 CD 66 ←—*4
```

<Service Mode (1/4)>
Fig. 1-3

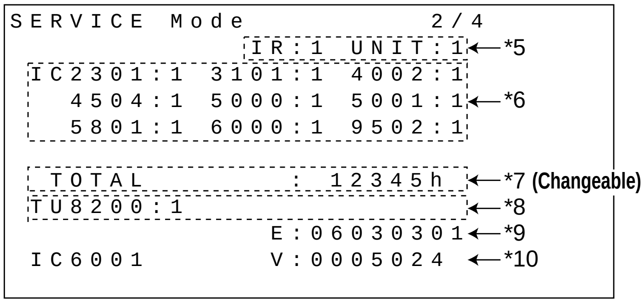
*1: The current elapsed "Lamp operation" time (in hours) **(changeable)**
Note:
"CURRENT LAMP" can be changed as follows:
Select "CURRENT LAMP" by pressing CH UP/DOWN key and press the OK key.
Then, press the VOLUME UP/DOWN key to change the value of *1.
To release, press the RECALL key.

*2: OSD Display ON/OFF mode **(Not used for service)**
Note:
Press the OK key to display OFF.
To release, press any key.

*3: The number of times the Lamp has turned on (limit 65535) **(For reference only)**
(When the Lamp time is reset, value of *3 will be "0")

*4: BKSV number read-out
HDMI IC on the Main P.C.B. has its own number called BKSV and it is displayed.

2. Press the CH DOWN key. Service Mode (2/4) will appear.



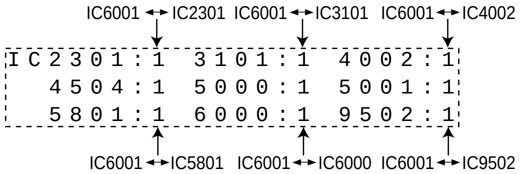
```
SERVICE Mode               2/4
                 IR:1  UNIT:1 ←—*5
 IC2301:1  3101:1  4002:1
    4504:1  5000:1  5001:1 ←—*6
    5801:1  6000:1  9502:1

  TOTAL          :  12345h ←—*7 (Changeable)
 TU8200:1                  ←—*8
                 E:06030301 ←—*9
 IC6001          V:0005024  ←—*10
```

<Service Mode (2/4)>
Fig. 1-4-1

*5: Key detection (IR and Unit operation button) check
Note:
On the remote, first, press the TV key on the remote to go to TV mode. Then, press any operation key except POWER, FF, PAUSE, STOP, REC, VCR/DBS CH UP/DOWN to detect if a key has been pressed. If a key has been detected by IC6001, "1" will change to "0."
On the unit, press any operation button except POWER to detect if a button has been pressed.
If a button has been detected by IC6001, "1" will change to "0."

*6: Communication check for IIC bus on the Main P.C.B.

(Communication check for I²C bus)



```
IC2301:1  3101:1  4002:1
   4504:1  5000:1  5001:1
   5801:1  6000:1  9502:1
```

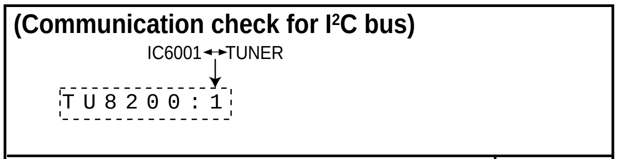
Explanation		Code No.
Communication check for I²C bus (IC6001↔IC2301(LCD MICROCONTROLLER))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC3101(VIDEO SW))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC4002(AUDIO SW))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC4504(AUDIO AMP))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC5000(MAIN VIDEO SIGNAL PROCESS))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC5001(DIGITAL VIDEO SIGNAL PROCESS)	NG OK	0 1
Communication check for I²C bus (IC6001↔IC5801(HDMI INTERFACE))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC6000(EEPROM))	NG OK	0 1
Communication check for I²C bus (IC6001↔IC9502(IRIS MICROCONTROLLER))	NG OK	0 1

Fig. 1-4-2

*7: The total elapsed "Lamp operation" time (in hours)
(changeable) (For reference only)
Note:
Changing the value of *1, does not affect the value of *7.

*8: Communication check for IIC bus on the Main P.C.B.

(Communication check for I²C bus)


IC6001↔TUNER

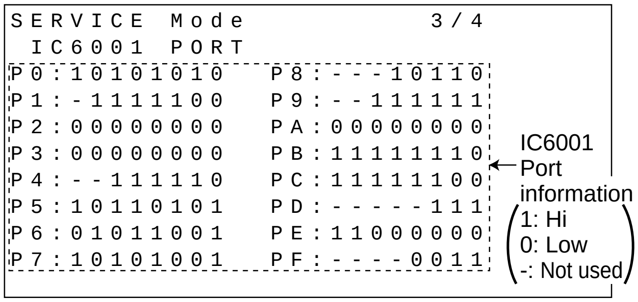
```
TU8200:1
```

Explanation		Code No.
Communication check for I²C bus (IC6001↔TUNER(ATSC DIGITAL TUNER))	**NG** **OK**	0 1

Fig. 1-4-3

*9: EEPROM IC6000 version and build version
*10: IC6001 software version and build version

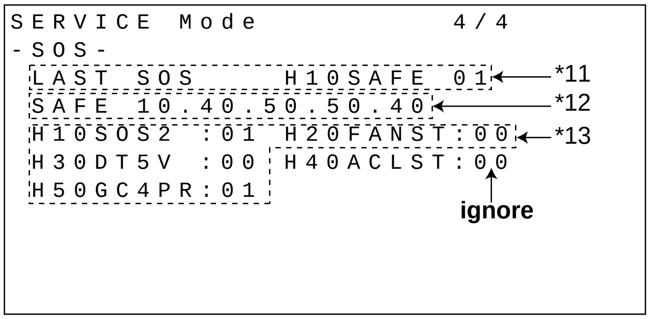
3. Press the CH DOWN key. Service Mode (3/4) will appear.


IC6001
Port
information
1: Hi
0: Low
-: Not used

```
SERVICE Mode            3/4
 IC6001 PORT
P0:10101010   P8:---10110
P1:-1111100   P9:--111111
P2:00000000   PA:00000000
P3:00000000   PB:11111110
P4:--111110   PC:11111100
P5:10110101   PD:-----111
P6:01011001   PE:11000000
P7:10101001   PF:----0011
```

<Service Mode (3/4)>
Fig. 1-5

4. Press the CH DOWN key. Service Mode (4/4) will appear.

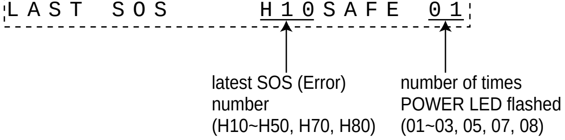

*11
*12
*13
ignore

```
SERVICE Mode            4/4
-SOS-
 LAST SOS     H10SAFE 01
 SAFE 10.40.50.50.40
 H10SOS2 :01 H20FANST:00
 H30DT5V :00 H40ACLST:00
 H50GC4PR:01
```

<Service Mode (4/4)>
Fig. 1-6-1

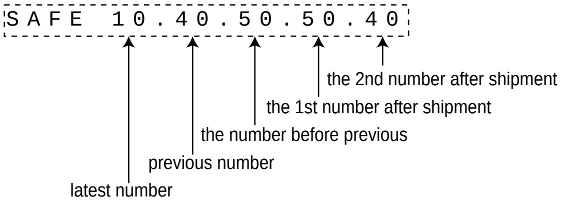
*11 Latest SOS (Error) number and the number of times POWER LED flashed

(Latest SOS number and the number of times POWER LED flashed)


LAST SOS H10SAFE 01
latest SOS (Error) number (H10~H50, H70, H80)
number of times POWER LED flashed (01~03, 05, 07, 08)

*12 SOS (Error) number records

(SOS number records)


SAFE 10.40.50.50.40
the 2nd number after shipment
the 1st number after shipment
the number before previous
previous number
latest number

*13 The number of times each SOS (Error) has occurred in hexadecimal

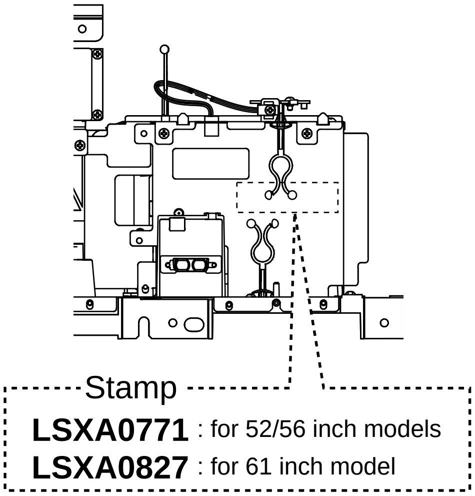
For *11~*13: SOS (Error) information, refer to "LED INDICATIONS FOR ERROR CONDITIONS."

Note:
To release from any service mode, press the POWER button to turn off.

TO DISTINGUISH THE PROJECTION UNIT

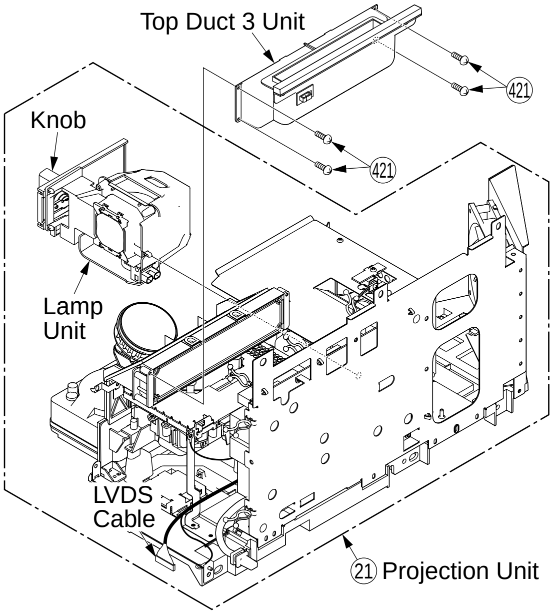
The only difference between the 52/56 inch model and 61 inch model of the Projection Unit is the LCD Drive P.C.B. Therefore, see the stamp on the Lamp Wall to differentiate. Also, the Focus Adjustment should be performed to match each size of model after replacing the new Projection Unit or the new Base Body Unit.

Note:
The Base Body Unit includes the Projection Unit.


Stamp
LSXA0771 : for 52/56 inch models
LSXA0827 : for 61 inch model

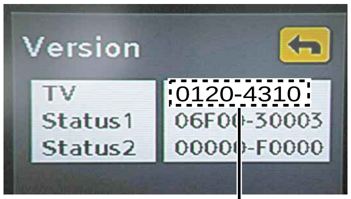
BEFORE REMOVING THE PROJECTION UNIT FROM THE UNIT AT THE USER'S LOCATION

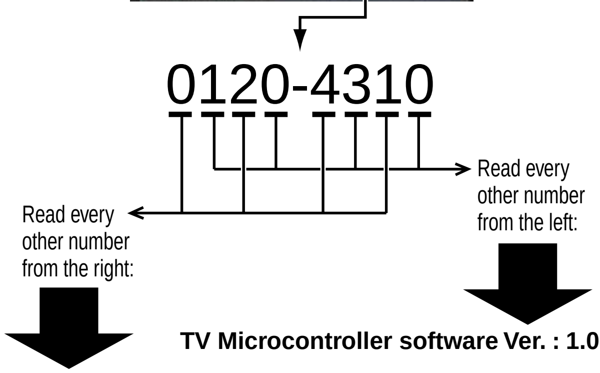
When removing the Projection Unit, remove the Lamp Unit and the Top Duct 3 Unit from the Projection Unit and keep them. Then, reinstall this Lamp Unit and the Top Duct 3 Unit into the new Projection Unit.


Top Duct 3 Unit
421
Knob
421
Lamp Unit
LVDS Cable
21 Projection Unit

TO READ THE DIGITAL TUNER (PEAKS) SOFTWARE VERSION AND TV MICROCONTROLLER SOFTWARE VERSION

1. Press MENU key with the power on.
2. Press CH UP/DOWN key and select "Setup."
   Then press OK key.
3. Press CH UP/DOWN key and select "About."
   Then press OK key.
4. Select "Version" and press OK key.
   Version menu will appear as shown below.
   Starting with the second digit from the right or from the left.


Version
TV 0120-4310
Status1 06F00-30003
Status2 00000-F0000


0120-4310
Read every other number from the left:
Read every other number from the right:

TV Microcontroller software Ver. : 1.030

Digital Tuner (Peaks) software Ver. : 1.420

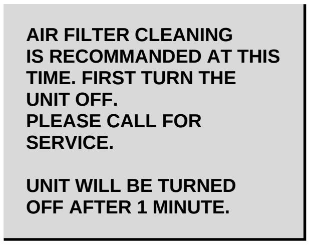
RESET USER’S MEMORY FUNCTIONS

Be sure to reset the user’s memory:
- After replacing the Digital Tuner P.C.B.
- If the secret code for V-chip has been forgotten.
- When moving the unit to a new location.
- When resetting SOS (Error) number records.

1. Turn on the power.
2. Press and hold the VOLUME DOWN button on the unit and the OK key on the remote for more than 3 seconds. When reset is finished, power shuts off automatically (the user’s memory is reset).

CLOGGED AIR FILTER DETECTION

When a dirty or clogged air filter is detected, the OSD display appears for 1 minute. And then the Lamp is turned OFF. When this OSD display appears, remove the Projection Unit from rear, and clean the air filters gently on the Projection Unit.



AIR FILTER CLEANING
IS RECOMMANDED AT THIS
TIME. FIRST TURN THE
UNIT OFF.
PLEASE CALL FOR
SERVICE.

UNIT WILL BE TURNED
OFF AFTER 1 MINUTE.

DO NOT UNPLUG AC CORD DURING COOLING OPERATION

The lamp cooling fan will continue to operate for approximately 1 minute after the power is turned off.
At the same time, the POWER LED will flash red.
Do not disconnect the AC Cord from the power outlet and do not open any circuit breakers while the cooling fan is still operating.

HOT CIRCUIT

Primary circuit exists on the Power P.C.B.
This circuit is identified as "**HOT**" on the P.C.B. and in the Service Manual. Use extreme care to prevent accidental shock when servicing.

MODEL NO. IDENTIFICATION MARK

Use Marks shown in the chart below to distinguish the different models included in this Service Manual.

MODEL	MARK
- - - - - - - - - - -	A
- - - - - - - - - - -	B
- - - - - - - - - - -	C
- - - - - - - - - - -	D
- - - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
NOT USED	PT

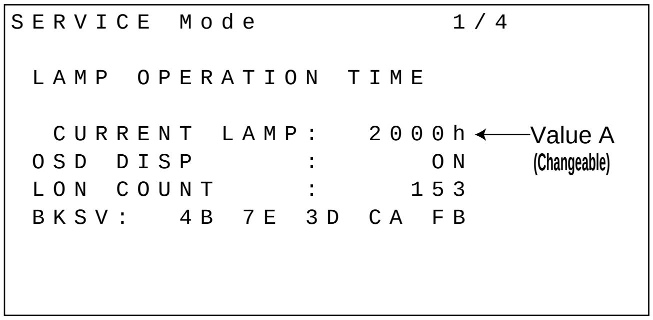
Note:
Refer to Item 3 of Schematic Diagram Notes of Schematic Diagram and Circuit Board Layout Notes, for mark "PT."

BEFORE REMOVING THE MAIN P.C.B. OR THE TV UNIT FROM THE UNIT AT THE USE'S LOCATION

Note:
The TV Unit includes the Main P.C.B.

CAUTION:

1. **<u>Be sure to make a note of the CURRENT LAMP value (value A) in Service Mode (1/4):</u>**



```
SERVICE Mode            1/4

 LAMP OPERATION TIME

  CURRENT LAMP:   2000h
 OSD DISP       :      ON
 LON COUNT      :     153
 BKSV:   4B 7E 3D CA FB
```

<Service Mode (1/4)>
Fig. 2

LAMP OPERATION TIME is stored in EEPROM on the Main P.C.B. Therefore, before removing the Main P.C.B. or the TV Unit at the user's location, make a note of the CURRENT LAMP value (value A) in Service Mode (1/4). Then, after installing the new Main P.C.B. or the TV Unit at the user's location, set the CURRENT LAMP value to the original value (value A) in Service Mode.
Otherwise, OSD and LED Lamp replacement indications will be displayed at the wrong time.

Note:
In case it is impossible to make a note of the CURRENT LAMP value because of a defective Main P.C.B., ask the customer their daily average use and the approximate age of the current Lamp. Then, calculate the CURRENT LAMP value as follows and make a note.

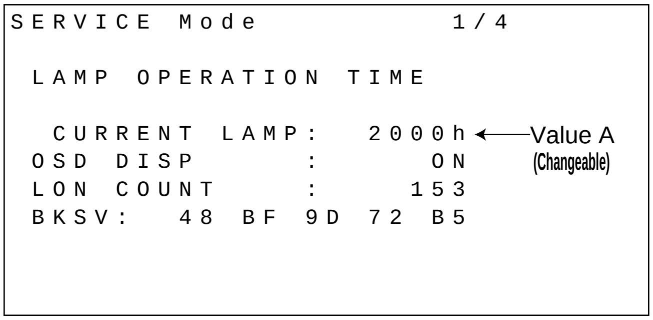
Daily average use (hours) X Approx. age (days) = **CURRENT LAMP** (hours)

Note:
The TOTAL value can be set to the original value in Service Mode (2/4) by similar method:
Before removing the Main P.C.B. at the user's location, make a note of the TOTAL value in Service Mode (2/4).
Then, after installing the new Main P.C.B. at the user's location, set the TOTAL value to the original value in Service Mode.

WHEN REINSTALLING THE MAIN P.C.B. OR THE TV UNIT FROM THE UNIT AT THE USE'S LOCATION

CAUTION:

1. Set CURRENT LAMP value to original value as follows.
   1) Select CURRENT LAMP in Service Mode (1/4).
   2) Press the VOLUME UP/DOWN key on the remote to change to the original value (value A) that was noted before removing the Main P.C.B. or the TV Unit at the user's location.

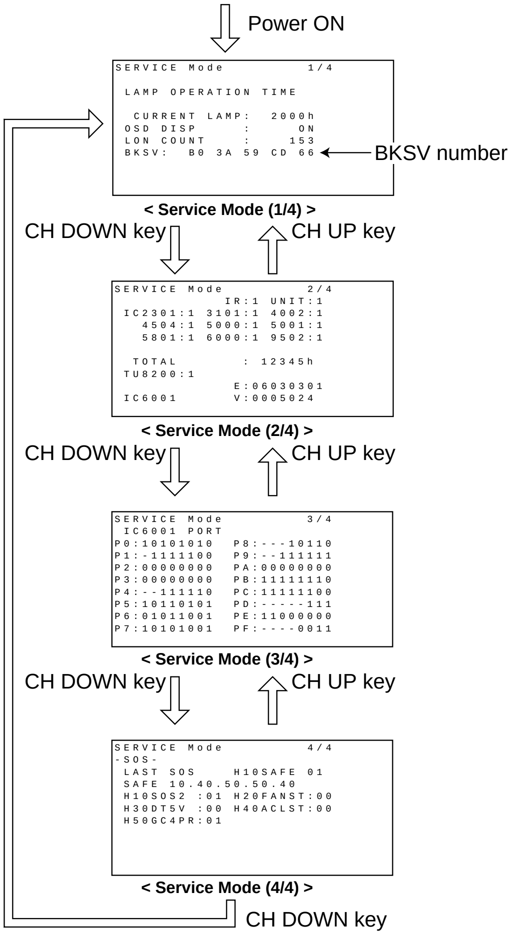


```
SERVICE Mode            1/4

 LAMP OPERATION TIME

  CURRENT LAMP:   2000h
 OSD DISP       :      ON
 LON COUNT      :     153
 BKSV:   48 BF 9D 72 B5
```

<Service Mode (1/4)>
Fig. 3

Service Mode Map

Enter:
VOLUME DOWN button + TV/VIDEO key
(on the front) (on the remote)
(for more than 5 seconds in power off condition)



```
SERVICE Mode            1/4

 LAMP OPERATION TIME

  CURRENT LAMP:   2000h
 OSD DISP       :      ON
 LON COUNT      :     153
 BKSV:   B0 3A 59 CD 66
```

< Service Mode (1/4) >

```
SERVICE Mode            2/4
                IR:1 UNIT:1
 IC2301:1 3101:1 4002:1
   4504:1 5000:1 5001:1
   5801:1 6000:1 9502:1

  TOTAL          : 12345h
 TU8200:1
                 E:06030301
 IC6001          V:0005024
```

< Service Mode (2/4) >

```
SERVICE Mode            3/4
 IC6001 PORT
P0:10101010  P8:---10110
P1:-1111100  P9:--111111
P2:00000000  PA:00000000
P3:00000000  PB:11111110
P4:--111110  PC:11111100
P5:10110101  PD:-----111
P6:01011001  PE:11000000
P7:10101001  PF:----0011
```

< Service Mode (3/4) >

```
SERVICE Mode            4/4
-SOS-
 LAST SOS     H10SAFE 01
 SAFE 10.40.50.50.40
 H10SOS2 :01 H20FANST:00
 H30DT5V :00 H40ACLST:00
 H50GC4PR:01
```

< Service Mode (4/4) >

Exit:
Power OFF.

WIRE AND LEAD POSITION DIAGRAM OF THE UNIT

After servicing, make sure that all wires, leads, and clampers are placed in their original position. It is important for the best operation of the unit.
Note: Use extreme care especially for the following.

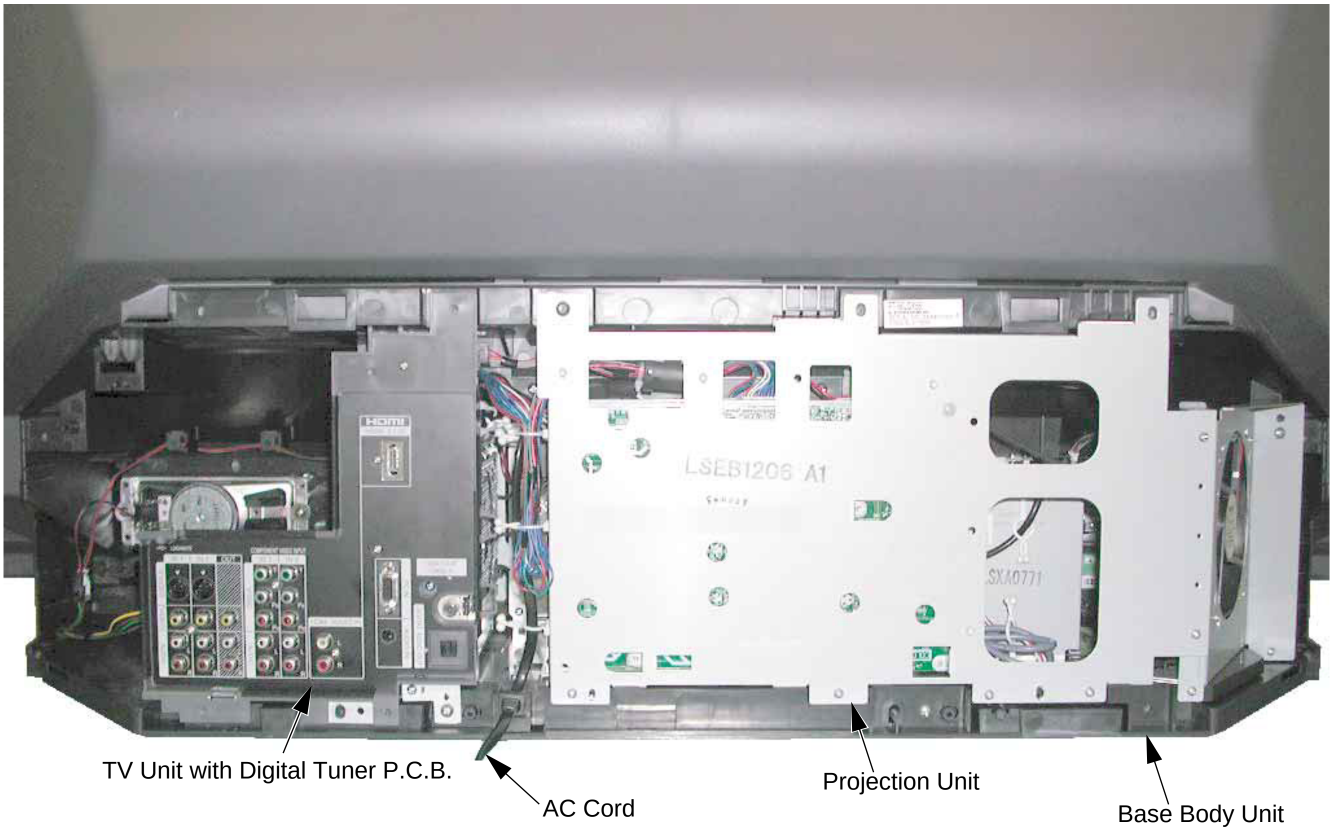

TV Unit with Digital Tuner P.C.B.
AC Cord
Projection Unit
Base Body Unit

Fig. 9-1

After servicing, make sure that all wires, leads, and clampers are placed in their original position. It is important for the best operation of the unit.

Note: Use extreme care especially for the following.

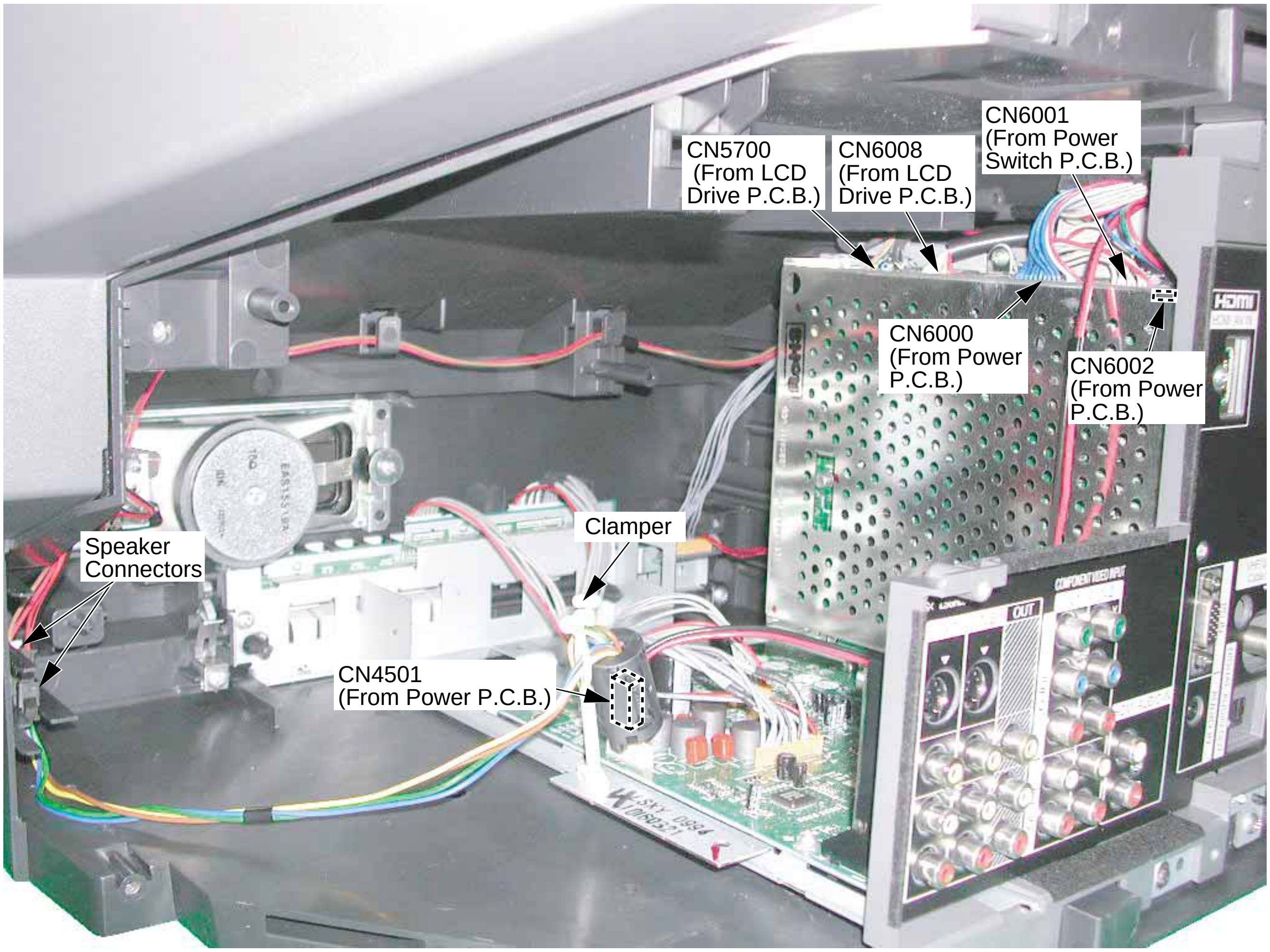
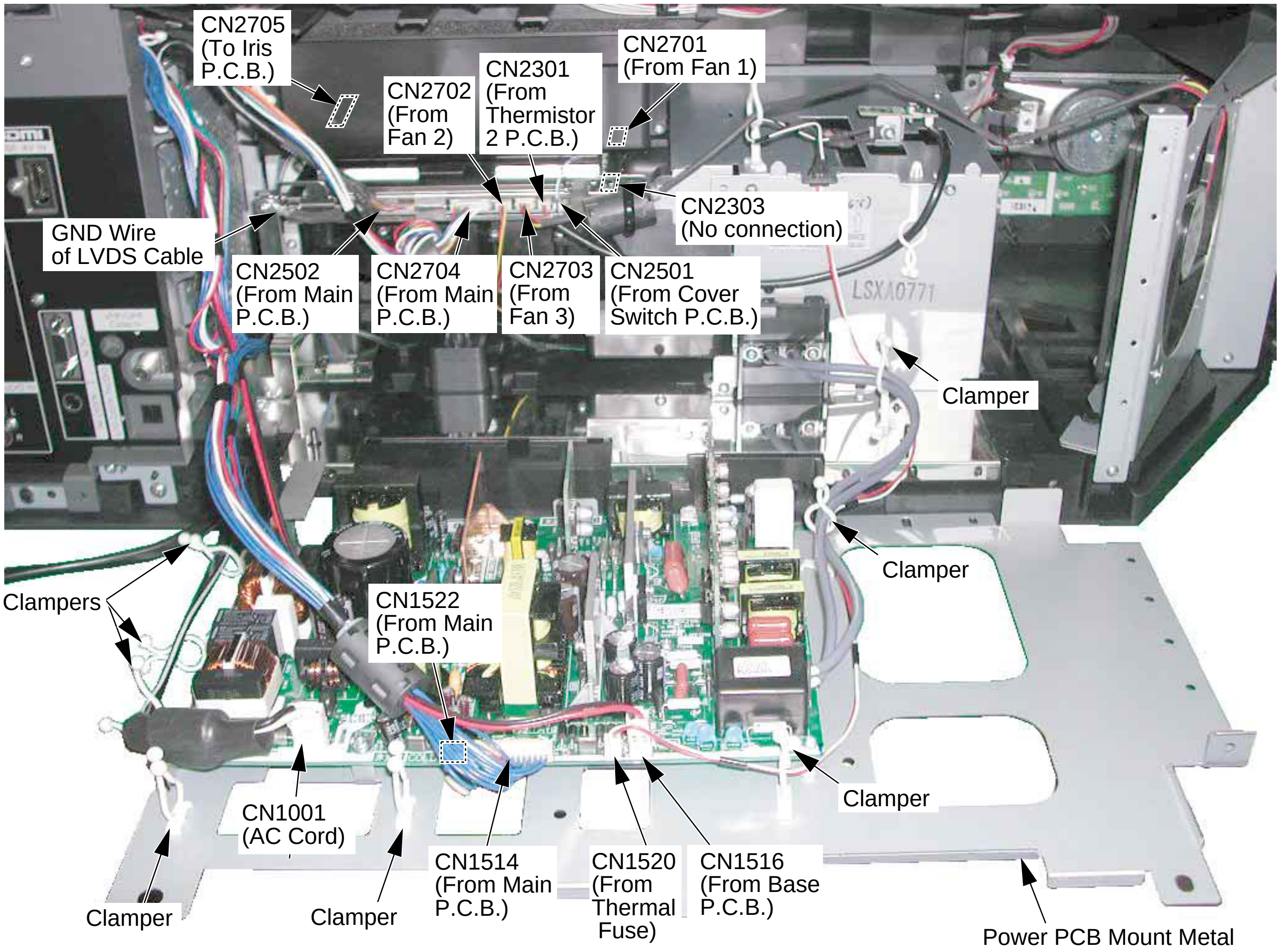

CN5700 (From LCD Drive P.C.B.)
CN6008 (From LCD Drive P.C.B.)
CN6001 (From Power Switch P.C.B.)
CN6000 (From Power P.C.B.)
CN6002 (From Power P.C.B.)
Clamper
Speaker Connectors
CN4501 (From Power P.C.B.)

Fig. 9-2

After servicing, make sure that all wires, leads, and clampers are placed in their original position. It is important for the best operation of the unit.

Note: Use extreme care especially for the following.


CN2705 (To Iris P.C.B.)
CN2702 (From Fan 2)
CN2301 (From Thermistor 2 P.C.B.)
CN2701 (From Fan 1)
CN2303 (No connection)
GND Wire of LVDS Cable
CN2502 (From Main P.C.B.)
CN2704 (From Main P.C.B.)
CN2703 (From Fan 3)
CN2501 (From Cover Switch P.C.B.)
Clamper
Clamper
Clampers
CN1522 (From Main P.C.B.)
Clamper
CN1001 (AC Cord)
Clamper
Clamper
CN1514 (From Main P.C.B.)
CN1520 (From Thermal Fuse)
CN1516 (From Base P.C.B.)
Power PCB Mount Metal

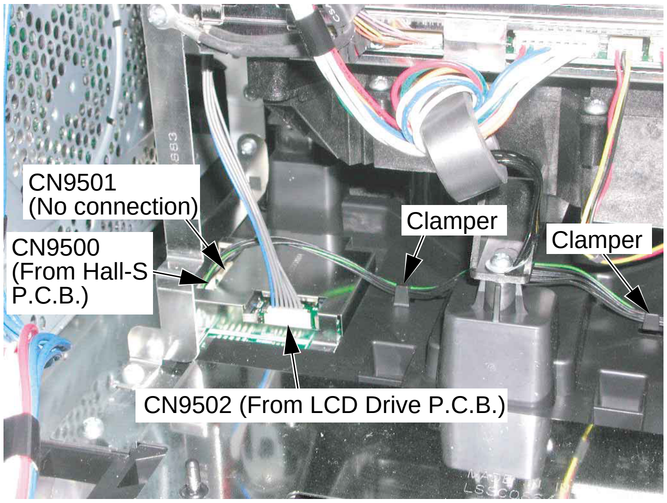

CN9501 (No connection)
CN9500 (From Hall-S P.C.B.)
Clamper
Clamper
CN9502 (From LCD Drive P.C.B.)

Fig. 9-3

After servicing, make sure that all wires, leads, and clampers are placed in their original position. It is important for the best operation of the unit.

Note: Use extreme care especially for the following.

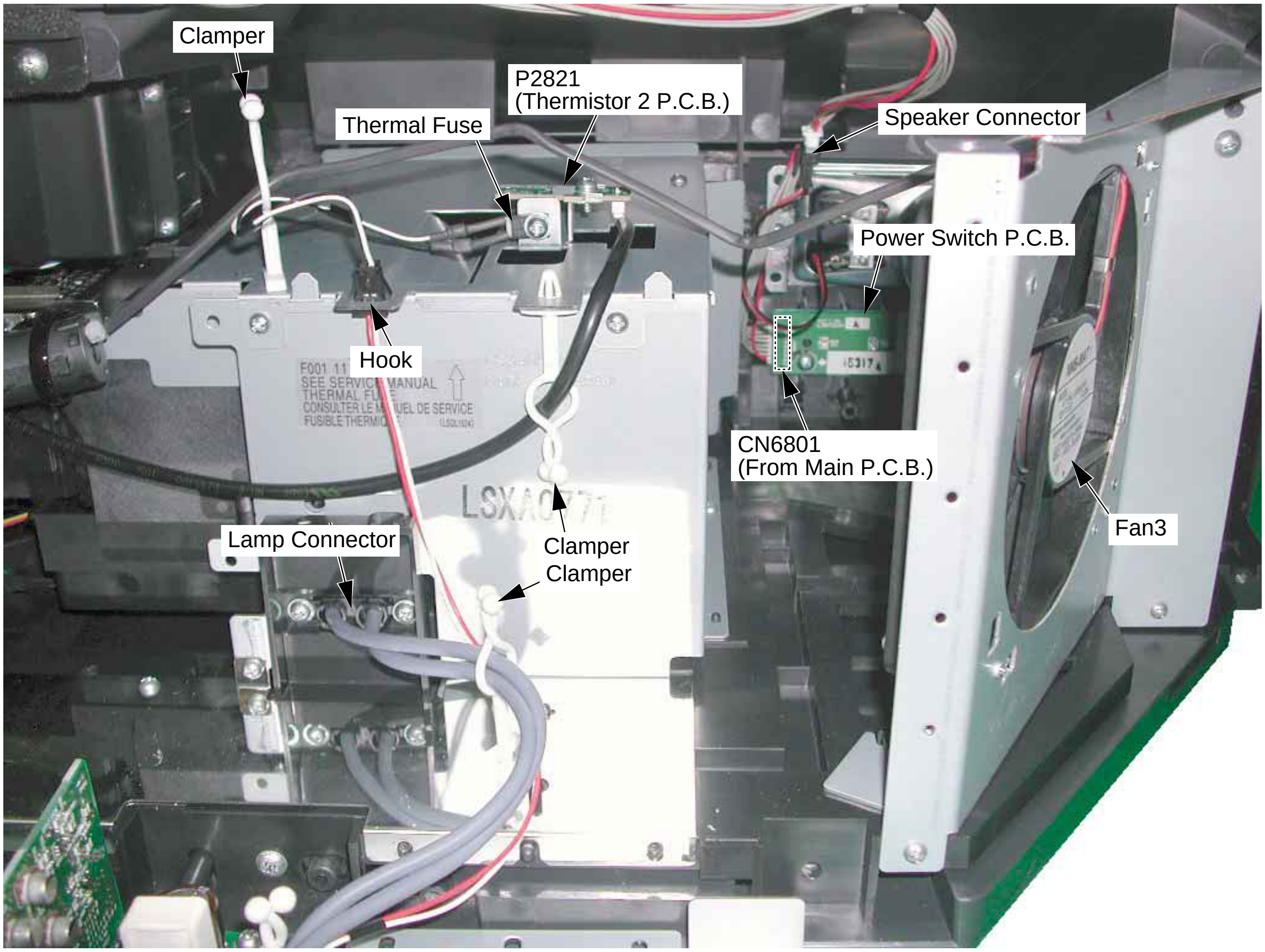

Clamper
P2821
(Thermistor 2 P.C.B.)
Thermal Fuse
Speaker Connector
Power Switch P.C.B.
Hook
CN6801
(From Main P.C.B.)
Lamp Connector
Clamper
Clamper
Fan3

Fig. 9-4

After servicing, make sure that all wires, leads, and clampers are placed in their original position. It is important for the best operation of the unit.

Note: Use extreme care especially for the following.

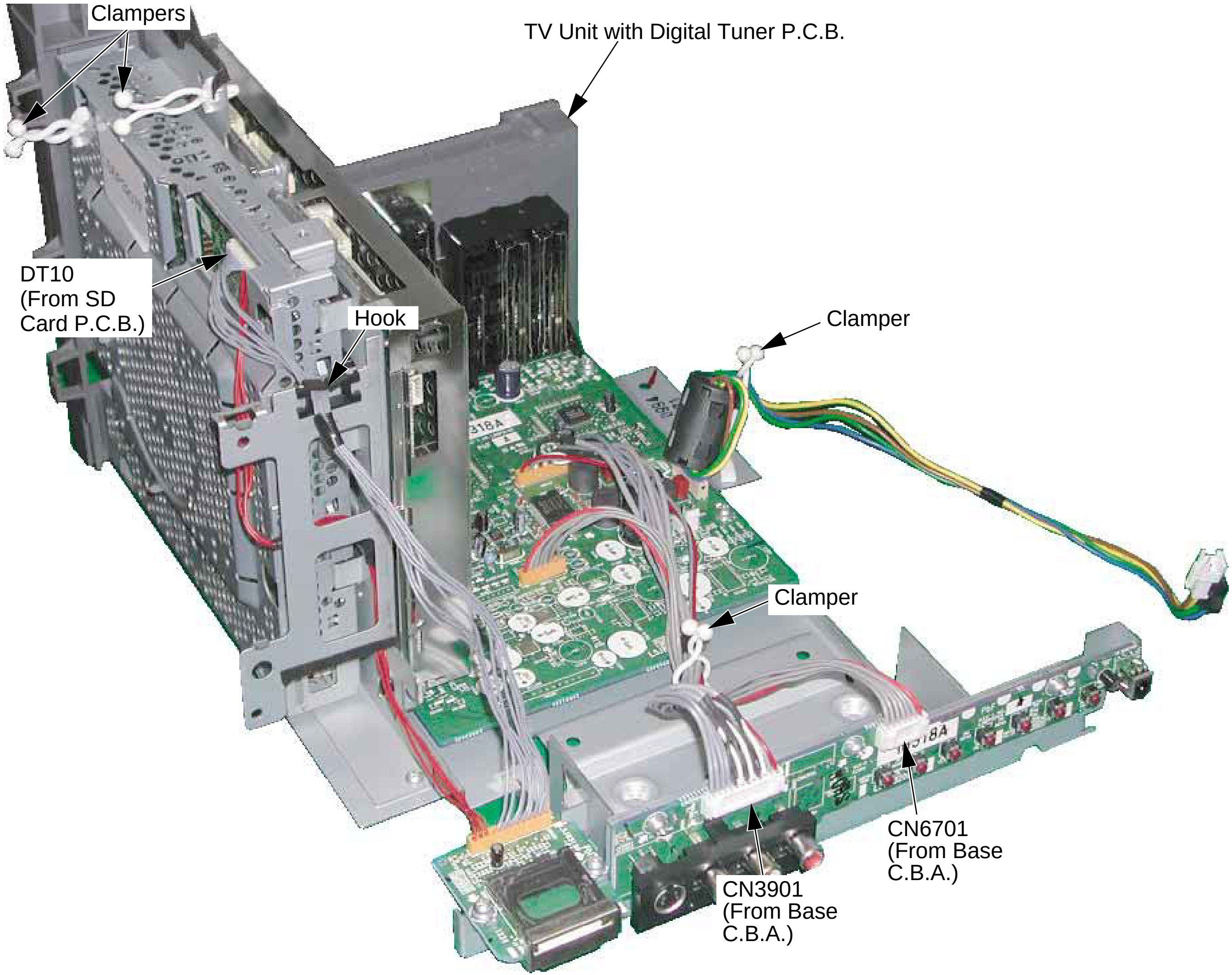

Clampers
TV Unit with Digital Tuner P.C.B.
DT10
(From SD
Card P.C.B.)
Hook
Clamper
Clamper
CN6701
(From Base
C.B.A.)
CN3901
(From Base
C.B.A.)

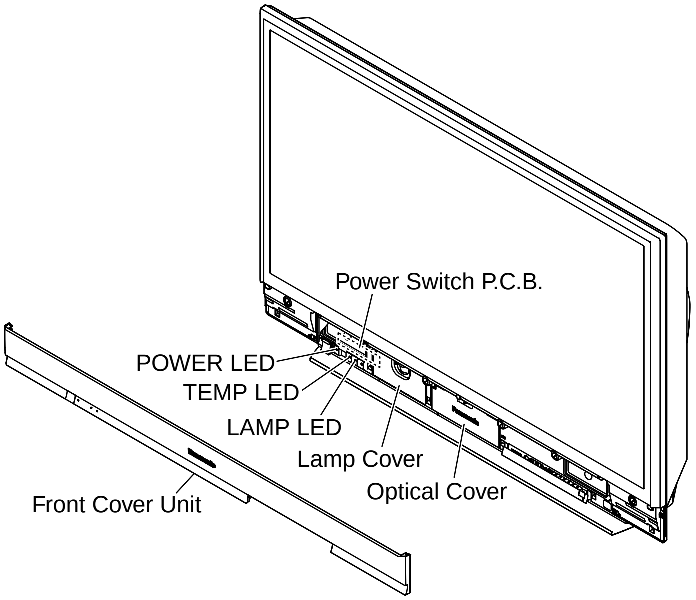
Fig. 9-5

7 Troubleshooting Guide

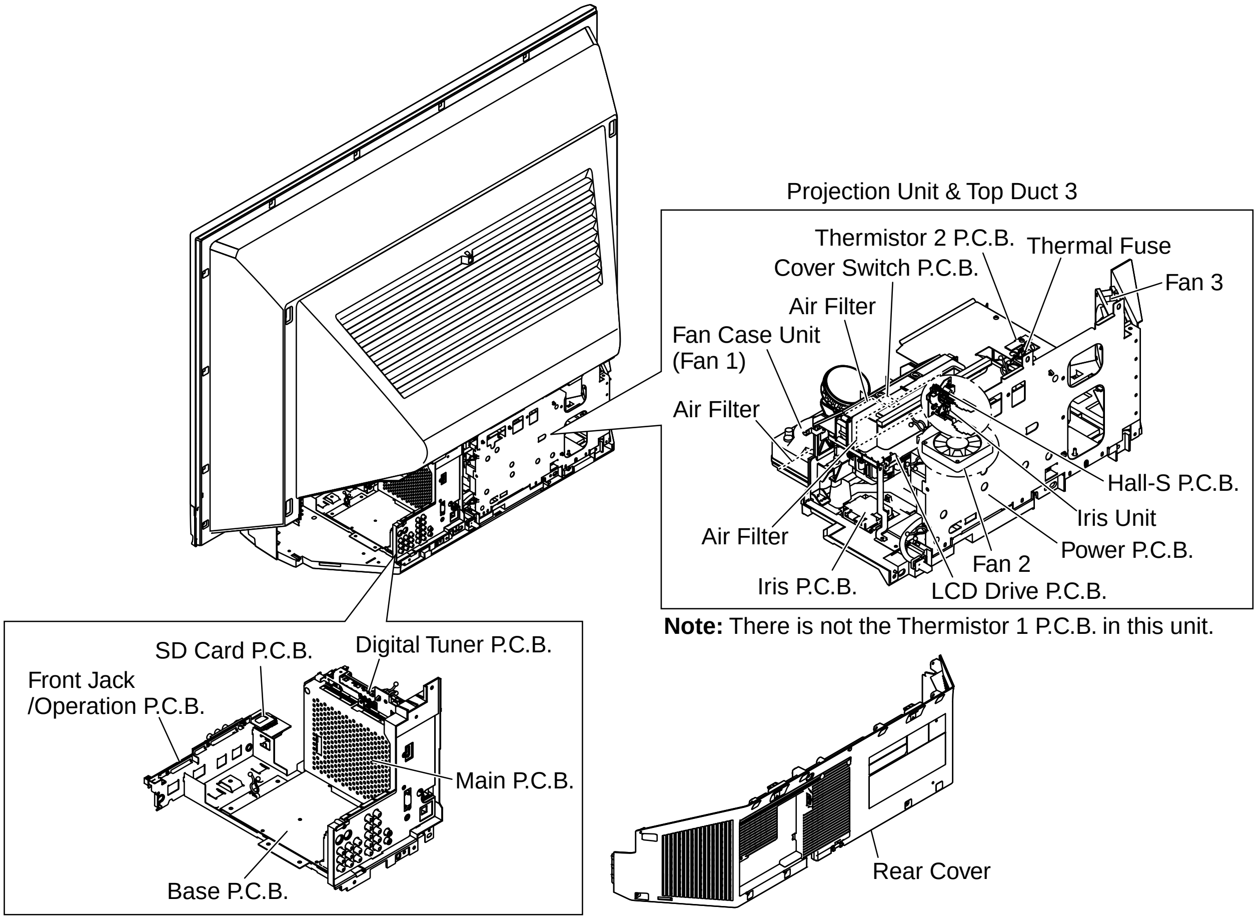
7.1. Troubleshooting Hints for Component Level Repair

MAIN PARTS LOCATION

<Front View>


Power Switch P.C.B.
POWER LED
TEMP LED
LAMP LED
Lamp Cover
Optical Cover
Front Cover Unit

<Rear View>

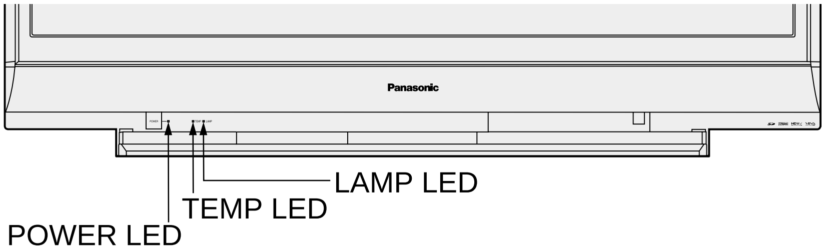

Projection Unit & Top Duct 3
Thermistor 2 P.C.B.
Thermal Fuse
Cover Switch P.C.B.
Fan 3
Air Filter
Fan Case Unit
(Fan 1)
Air Filter
Hall-S P.C.B.
Iris Unit
Air Filter
Power P.C.B.
Fan 2
Iris P.C.B.
LCD Drive P.C.B.
SD Card P.C.B.
Digital Tuner P.C.B.
Front Jack
/Operation P.C.B.
Main P.C.B.
Base P.C.B.
Rear Cover

Note: There is not the Thermistor 1 P.C.B. in this unit.

TV Unit & Digital Tuner P.C.B.

LED INDICATIONS FOR ERROR CONDITIONS

Each LED indication facilitates finding the cause of an error.
When an error is detected, the Lamp goes off and the LEDs on the front flash.



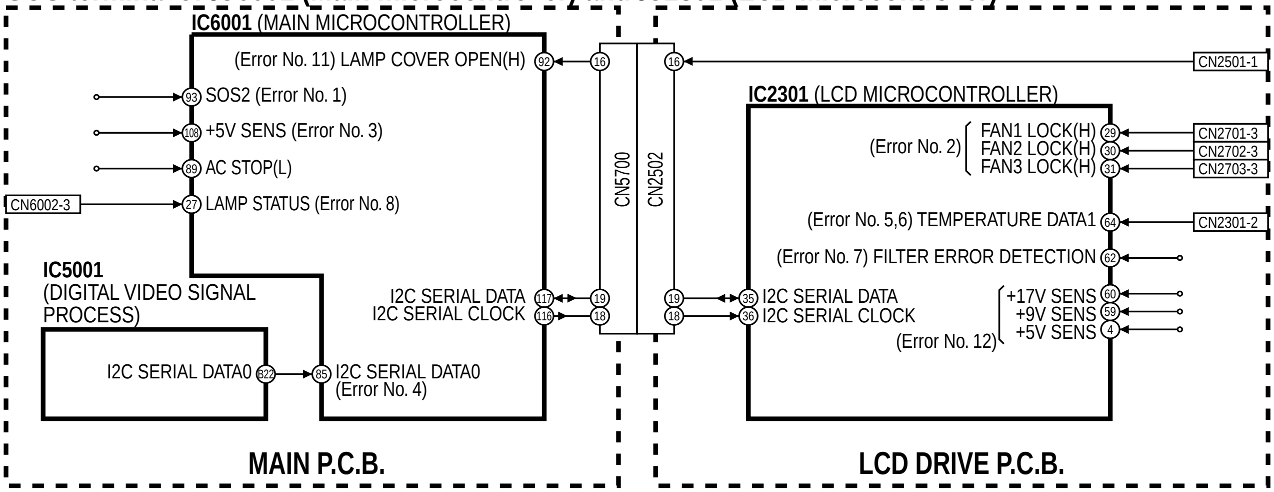
				(Note 4)	(Note 1, 2)	(Note 3)	
Error No.	Error Information	POWER LED flashes orange	TEMP LED flashes red	LAMP LED flashes red	SOS	LAMP OFF	RESET
1)	SOS2 (Over voltage/current)	1	-	-	H10SOS2	○	Power ON/OFF
2)	Fan 1, Fan 2 or Fan 3 stops	2	-	-	H20FANST	○	AC ON/OFF
3)	Abnormal voltage (DT+5V line)	3	-	-	H30DT9V	○	Power ON/OFF
4)	IC5001 (GC4Pro) communication error	5	-	-	H50GC4PR	○	AC ON/OFF
5)	Temperature Sensor shorted or open (Thermistor 2 P.C.B.)	-	2	-	-	○	Power ON/OFF
6)	Abnormal temperature (Thermistor 2 P.C.B.)	-	3	-	-	○	
7)	Clogged Air Filter	-	6	-	-	○	Clean Air Filter
8)	Abnormal Lamp	-	-	1	-	○	Power ON/OFF
9)	Iris Mechanism hardware error	-	-	2	-	-	
10)	Iris calibration error	-	-	3	-	-	
11)	Lamp Cover open	7	-	-	(H70LAMCV)	○	
12)	Abnormal voltage (+17V, +9V, +5V line) for LCD Drive P.C.B.	8	-	-	(H80LCDDV)	○	

Note:

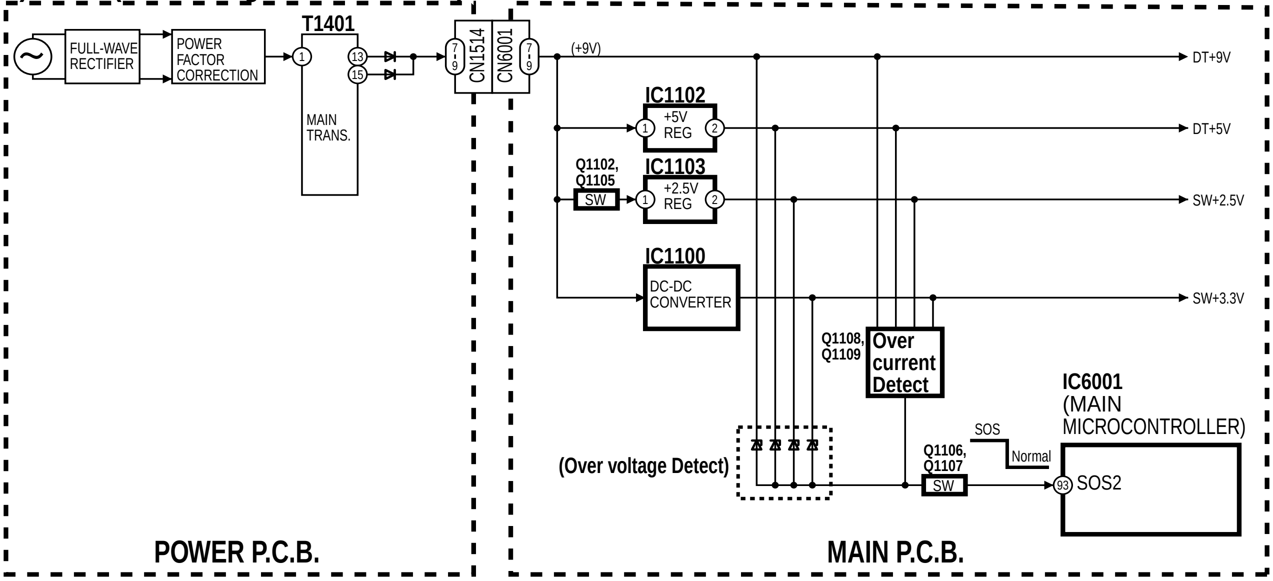
1. The detected SOS Error 1) 2) 3) 4) 11) 12) data will be stored in the EEPROM.
2. SOS (Error) information is displayed in Service Mode (4/4).
3. LAMP OFF: The LED will flash immediately after the Lamp goes off.
4. **In case of Error 9) or 10), the unit will not shut off and Dynamic Iris setting in Adv. adjust of Picture Menu will be changed to "OFF" automatically. When the unit is turned off and turned back on, Dynamic Iris "OFF" setting remains. Lamp LED will not flash as long as Dynamic Iris setting in Adv. adjust of Picture Menu is set to "ON" manually.**

Protection Circuit

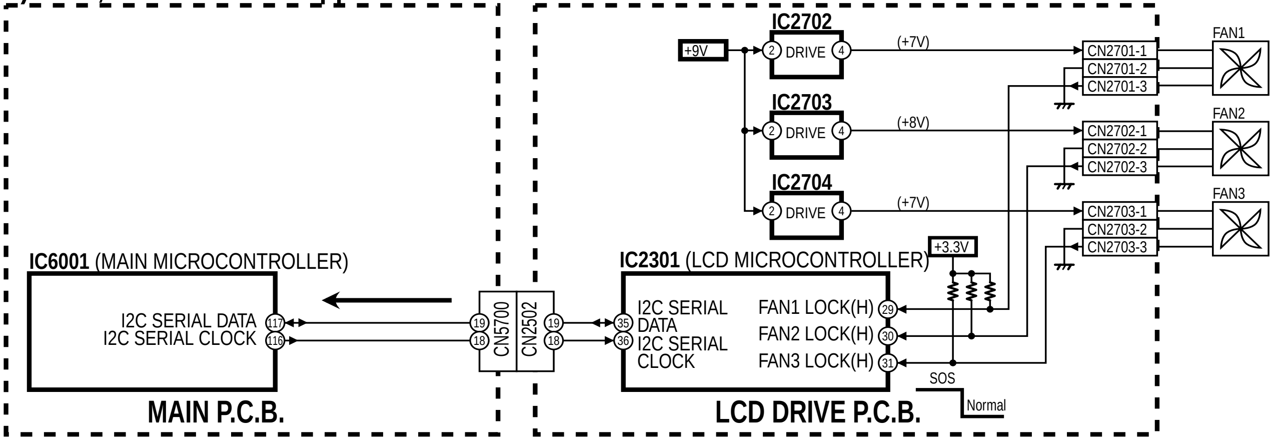
SOS terminal of IC6001 (Main microcontroller) and IC2301 (LCD Microcontroller)


IC6001 (MAIN MICROCONTROLLER)
(Error No. 11) LAMP COVER OPEN(H) 92
93 SOS2 (Error No. 1)
108 +5V SENS (Error No. 3)
89 AC STOP(L)
CN6002-3
27 LAMP STATUS (Error No. 8)
IC5001
(DIGITAL VIDEO SIGNAL PROCESS)
I2C SERIAL DATA0 122
85 I2C SERIAL DATA0 (Error No. 4)
I2C SERIAL DATA 117
I2C SERIAL CLOCK 116
16
19
18
CN5700
CN2502
CN2501-1
IC2301 (LCD MICROCONTROLLER)
(Error No. 2)
FAN1 LOCK(H) 29
FAN2 LOCK(H) 30
FAN3 LOCK(H) 31
CN2701-3
CN2702-3
CN2703-3
(Error No. 5,6) TEMPERATURE DATA1 64
CN2301-2
(Error No. 7) FILTER ERROR DETECTION 62
35 I2C SERIAL DATA
36 I2C SERIAL CLOCK
+17V SENS 60
+9V SENS 59
+5V SENS 4
(Error No. 12)
MAIN P.C.B.
LCD DRIVE P.C.B.

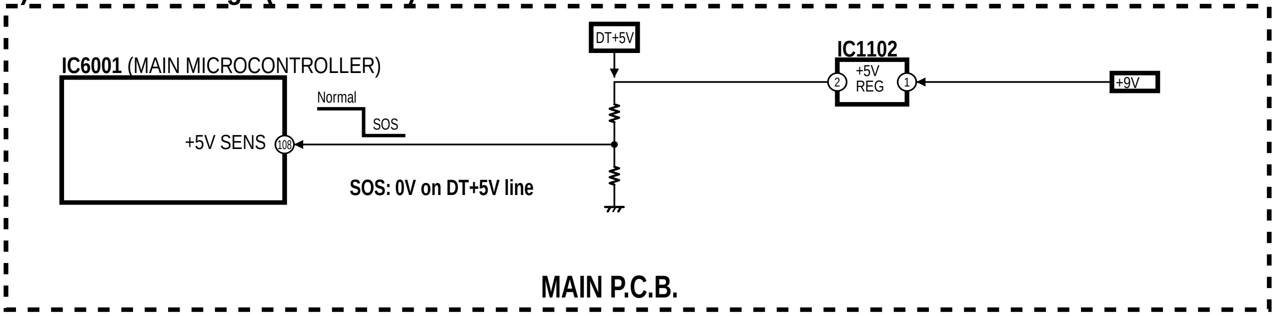
1) SOS2 (over voltage/current detect) detection circuit


FULL-WAVE RECTIFIER
POWER FACTOR CORRECTION
T1401
1
13
15
MAIN TRANS.
7 - 9
CN1514
CN6001
(+9V)
DT+9V
IC1102
+5V REG
DT+5V
Q1102, Q1105
SW
IC1103
+2.5V REG
SW+2.5V
IC1100
DC-DC CONVERTER
SW+3.3V
Q1108, Q1109
Over current Detect
IC6001 (MAIN MICROCONTROLLER)
SOS
Normal
Q1106, Q1107
SW
93 SOS2
(Over voltage Detect)
POWER P.C.B.
MAIN P.C.B.

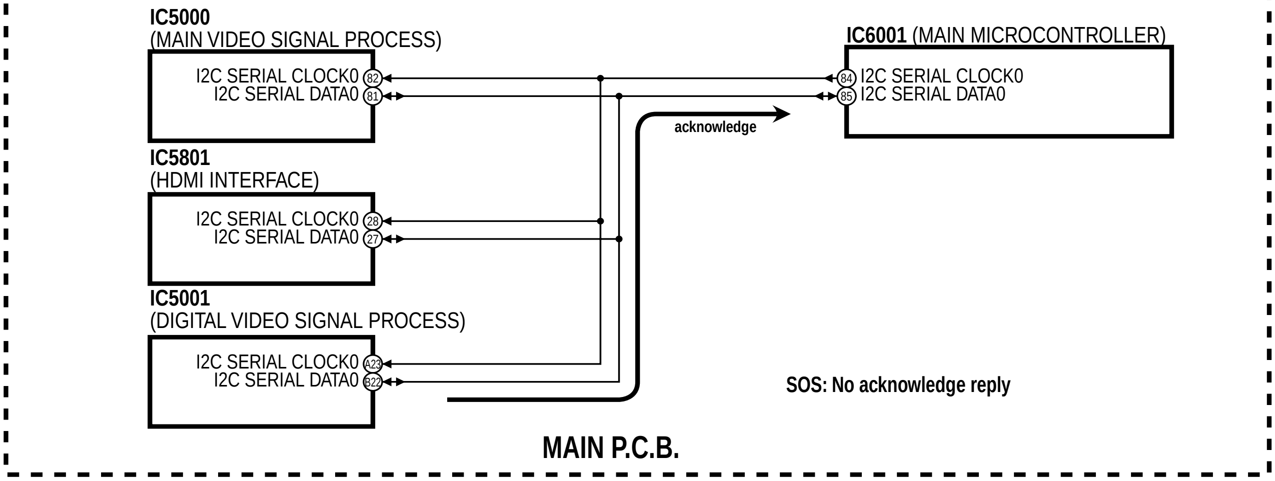
2) Fan1, Fan2 or Fan3 stopped detection circuit


IC2702
+9V
2 DRIVE 4
(+7V)
IC2703
2 DRIVE 4
(+8V)
IC2704
2 DRIVE 4
(+7V)
CN2701-1
CN2701-2
CN2701-3
CN2702-1
CN2702-2
CN2702-3
CN2703-1
CN2703-2
CN2703-3
FAN1
FAN2
FAN3
+3.3V
IC6001 (MAIN MICROCONTROLLER)
I2C SERIAL DATA 117
I2C SERIAL CLOCK 116
19
18
CN5700
CN2502
IC2301 (LCD MICROCONTROLLER)
35 I2C SERIAL DATA
36 I2C SERIAL CLOCK
FAN1 LOCK(H) 29
FAN2 LOCK(H) 30
FAN3 LOCK(H) 31
SOS
Normal
MAIN P.C.B.
LCD DRIVE P.C.B.

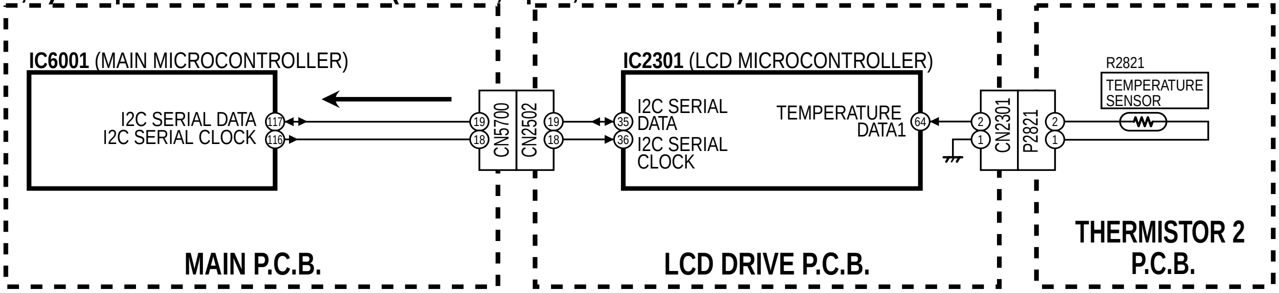
3) Abnormal voltage (DT+5V line) detection circuit


IC6001 (MAIN MICROCONTROLLER)
+5V SENS
108
Normal
SOS
DT+5V
IC1102
+5V REG
2
1
+9V
SOS: 0V on DT+5V line
MAIN P.C.B.

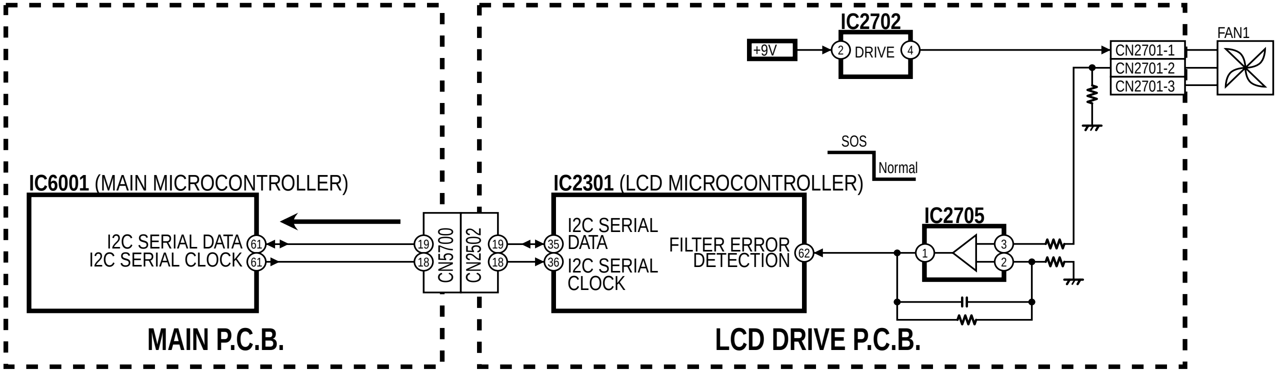
4) IC5001 (GC4PRO) communication error detection circuit


IC5000
(MAIN VIDEO SIGNAL PROCESS)
I2C SERIAL CLOCK0 82
I2C SERIAL DATA0 81
IC5801
(HDMI INTERFACE)
I2C SERIAL CLOCK0 28
I2C SERIAL DATA0 27
IC5001
(DIGITAL VIDEO SIGNAL PROCESS)
I2C SERIAL CLOCK0 A23
I2C SERIAL DATA0 B22
acknowledge
IC6001 (MAIN MICROCONTROLLER)
84 I2C SERIAL CLOCK0
85 I2C SERIAL DATA0
SOS: No acknowledge reply
MAIN P.C.B.

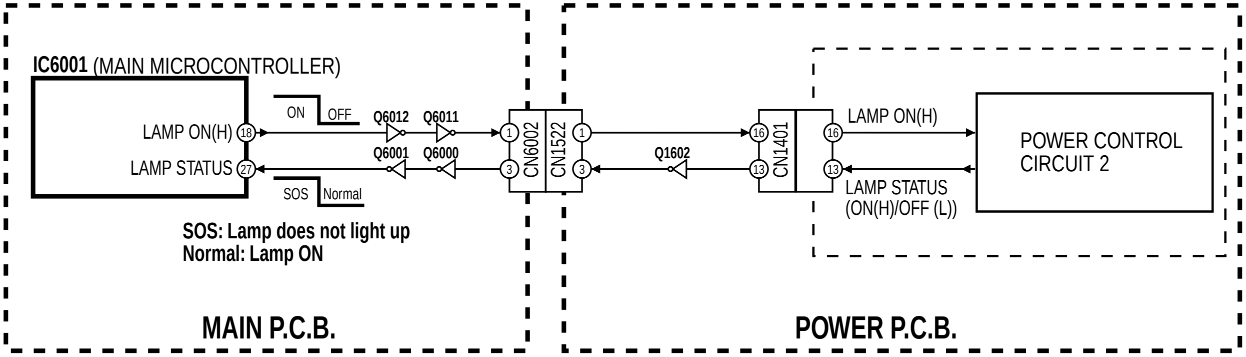
5, 6) Temperature Sensor error (shorted, open, or abnormal) detection circuit


IC6001 (MAIN MICROCONTROLLER)
I2C SERIAL DATA 117
I2C SERIAL CLOCK 116
CN5700
19
18
CN2502
19
18
IC2301 (LCD MICROCONTROLLER)
35 I2C SERIAL DATA
36 I2C SERIAL CLOCK
TEMPERATURE DATA1 64
CN2301
2
1
P2821
2
1
R2821
TEMPERATURE SENSOR
MAIN P.C.B.
LCD DRIVE P.C.B.
THERMISTOR 2 P.C.B.

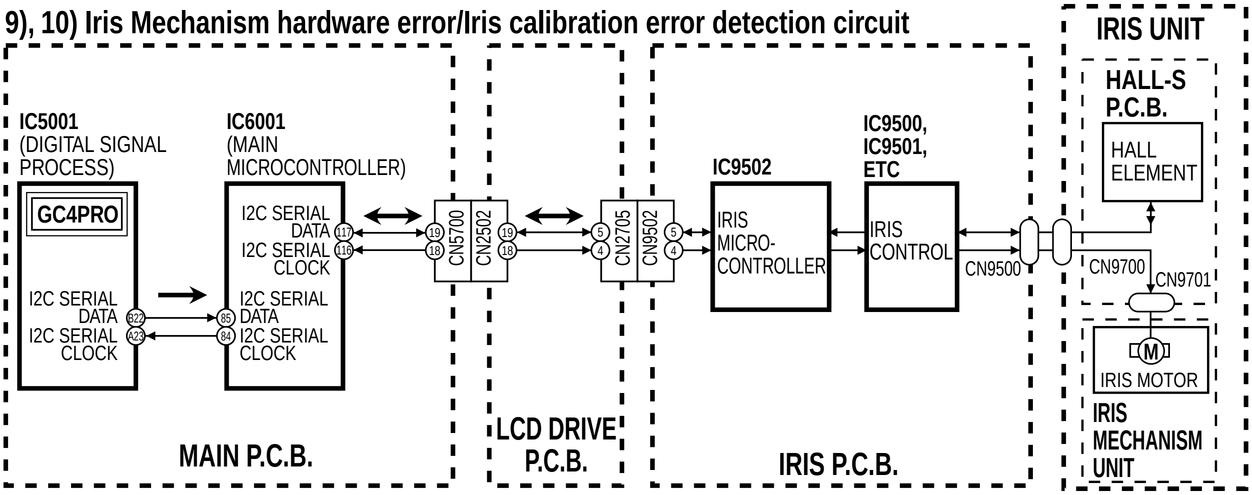
7) Clogged air filter detection circuit


IC2702
+9V
2 DRIVE 4
CN2701-1
CN2701-2
CN2701-3
FAN1
SOS
Normal
IC6001 (MAIN MICROCONTROLLER)
I2C SERIAL DATA 61
I2C SERIAL CLOCK 61
CN5700
19
18
CN2502
19
18
IC2301 (LCD MICROCONTROLLER)
35 I2C SERIAL DATA
36 I2C SERIAL CLOCK
FILTER ERROR DETECTION 62
IC2705
1
3
2
MAIN P.C.B.
LCD DRIVE P.C.B.

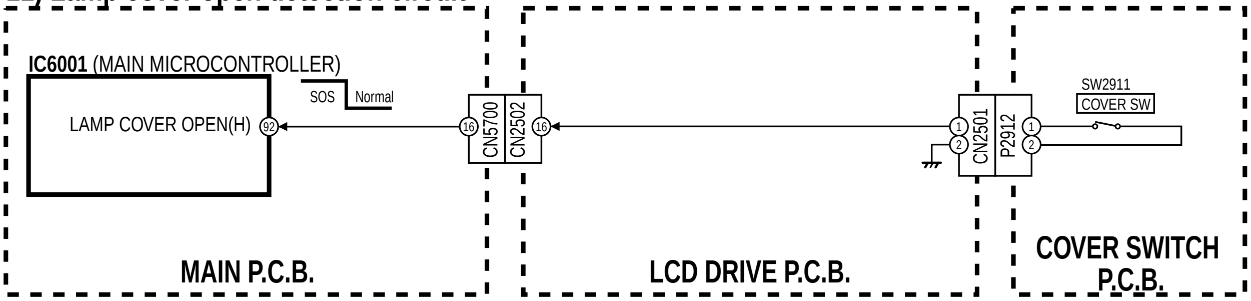
8) Abnormal Lamp detection circuit


IC6001 (MAIN MICROCONTROLLER)
LAMP ON(H)
18
LAMP STATUS
27
ON
OFF
SOS
Normal
Q6012
Q6011
Q6001
Q6000
1
3
CN6002
CN1522
Q1602
16
13
CN1401
LAMP ON(H)
LAMP STATUS
(ON(H)/OFF (L))
POWER CONTROL
CIRCUIT 2
SOS: Lamp does not light up
Normal: Lamp ON
MAIN P.C.B.
POWER P.C.B.

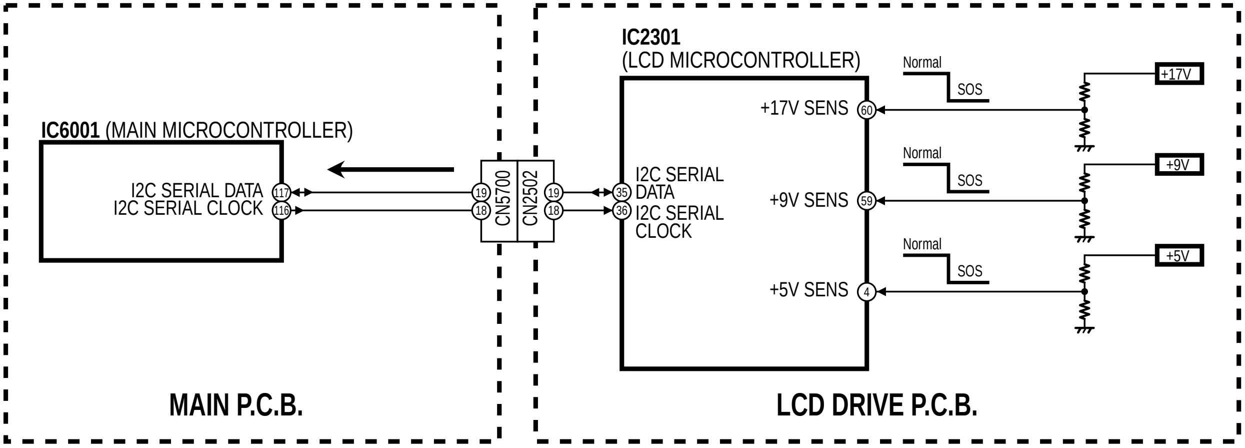
9), 10) Iris Mechanism hardware error/Iris calibration error detection circuit


IC5001
(DIGITAL SIGNAL
PROCESS)
GC4PRO
I2C SERIAL
DATA
B22
I2C SERIAL
CLOCK
A23
IC6001
(MAIN
MICROCONTROLLER)
I2C SERIAL
DATA
117
I2C SERIAL
CLOCK
116
85
I2C SERIAL
DATA
84
I2C SERIAL
CLOCK
19
18
CN5700
CN2502
5
4
CN2705
CN9502
IC9502
IRIS
MICRO-
CONTROLLER
IC9500,
IC9501,
ETC
IRIS
CONTROL
CN9500
IRIS UNIT
HALL-S
P.C.B.
HALL
ELEMENT
CN9700
CN9701
M
IRIS MOTOR
IRIS
MECHANISM
UNIT
MAIN P.C.B.
LCD DRIVE
P.C.B.
IRIS P.C.B.

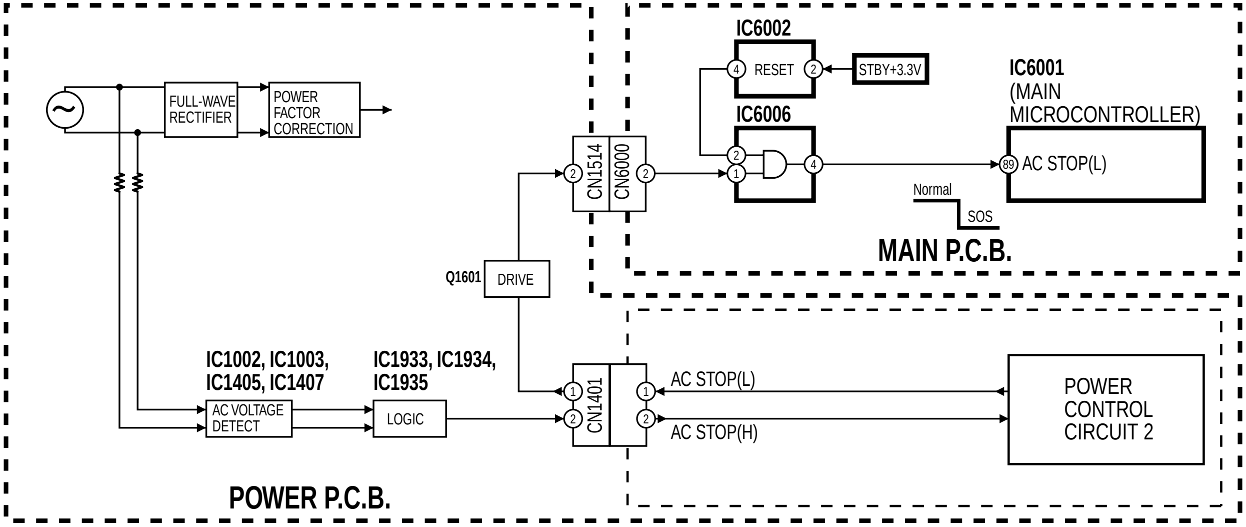
11) Lamp cover open detection circuit


IC6001 (MAIN MICROCONTROLLER)
LAMP COVER OPEN(H)
92
SOS
Normal
16
CN5700
CN2502
1
2
CN2501
P2912
SW2911
COVER SW
MAIN P.C.B.
LCD DRIVE P.C.B.
COVER SWITCH
P.C.B.

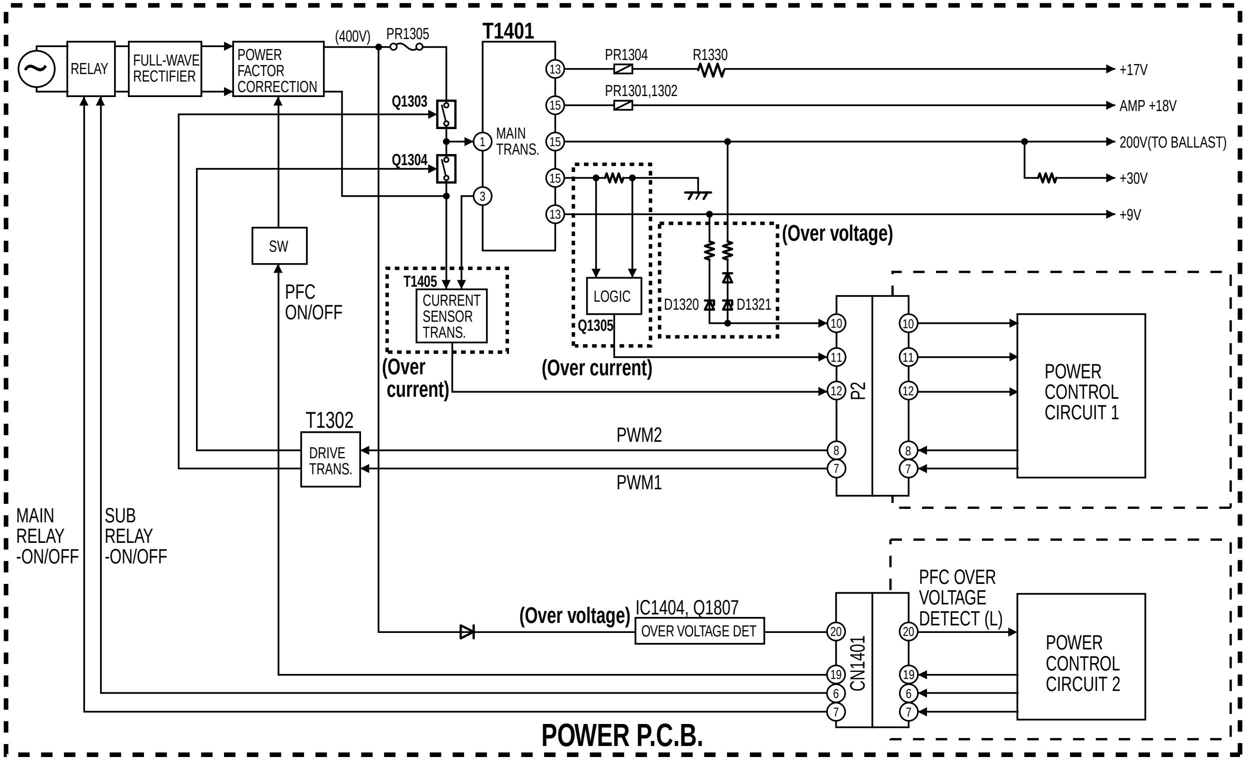
12) Abnormal voltage (+17V, +9V, +5V lines) detection circuit


IC6001 (MAIN MICROCONTROLLER)
I2C SERIAL DATA
117
I2C SERIAL CLOCK
116
19
18
CN5700
CN2502
IC2301
(LCD MICROCONTROLLER)
35
I2C SERIAL
DATA
36
I2C SERIAL
CLOCK
+17V SENS
60
+9V SENS
59
+5V SENS
4
Normal
SOS
+17V
+9V
+5V
MAIN P.C.B.
LCD DRIVE P.C.B.

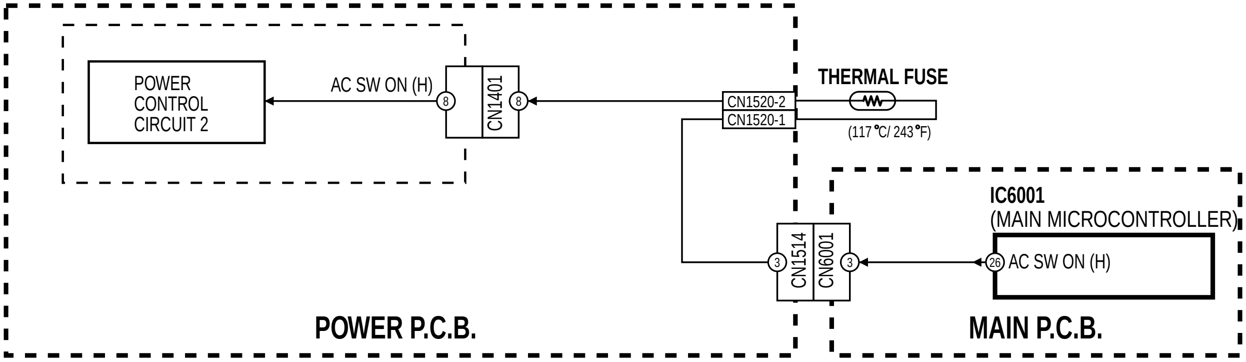
● AC stop detection circuit


IC6002
RESET
STBY+3.3V
IC6001
(MAIN MICROCONTROLLER)
IC6006
AC STOP(L)
Normal
SOS
MAIN P.C.B.
FULL-WAVE RECTIFIER
POWER FACTOR CORRECTION
CN1514
CN6000
Q1601
DRIVE
IC1002, IC1003, IC1405, IC1407
AC VOLTAGE DETECT
IC1933, IC1934, IC1935
LOGIC
CN1401
AC STOP(L)
AC STOP(H)
POWER CONTROL CIRCUIT 2
POWER P.C.B.

● Over voltage/current detection circuit


RELAY
FULL-WAVE RECTIFIER
POWER FACTOR CORRECTION
(400V)
PR1305
T1401
PR1304
R1330
+17V
PR1301,1302
AMP +18V
200V(TO BALLAST)
+30V
+9V
Q1303
Q1304
MAIN TRANS.
SW
PFC ON/OFF
T1405
CURRENT SENSOR TRANS.
LOGIC
Q1305
D1320
D1321
(Over voltage)
(Over current)
(Over current)
P2
POWER CONTROL CIRCUIT 1
T1302
DRIVE TRANS.
PWM2
PWM1
MAIN RELAY -ON/OFF
SUB RELAY -ON/OFF
(Over voltage)
IC1404, Q1807
OVER VOLTAGE DET
CN1401
PFC OVER VOLTAGE DETECT (L)
POWER CONTROL CIRCUIT 2
POWER P.C.B.

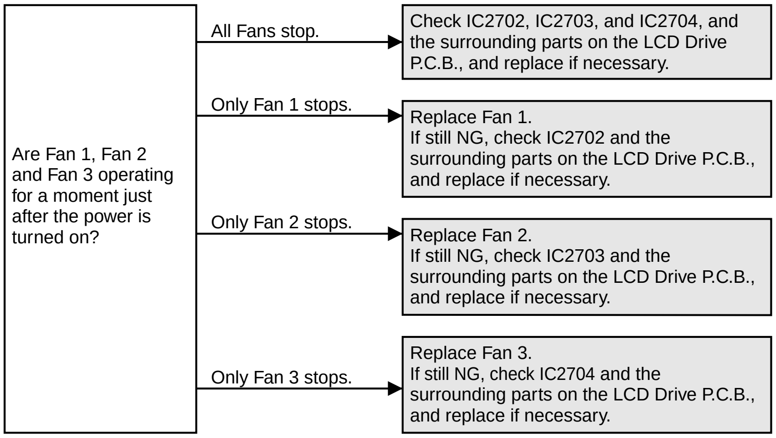
● Abnormal Temperature (Thermal fuse)


POWER CONTROL CIRCUIT 2
AC SW ON (H)
CN1401
CN1520-2
CN1520-1
THERMAL FUSE
(117°C/ 243°F)
IC6001
(MAIN MICROCONTROLLER)
AC SW ON (H)
CN1514
CN6001
POWER P.C.B.
MAIN P.C.B.

How to solve problems indicated by the Error Indication of LED

(The symptom of all errors is that Lamp goes off or Lamp does not light up)

Note: Before performing the troubleshooting, confirm that all connector cables in the unit are connected correctly.

Error No.	Problem	Possible Solution
1)	Following voltage lines on the Main P.C.B. is over voltage or over current. • DT+9V line • DT+5V line • SW+3.3V line • SW+2.5V line	The Main P.C.B. is defective. (Refer to **"CHECKING THE MAIN P.C.B."**)
2)	Cooling Fan (Fan 1, Fan 2 and/or Fan 3) malfunction.	 Are Fan 1, Fan 2 and Fan 3 operating for a moment just after the power is turned on? All Fans stop. → Check IC2702, IC2703, and IC2704, and the surrounding parts on the LCD Drive P.C.B., and replace if necessary. Only Fan 1 stops. → Replace Fan 1. If still NG, check IC2702 and the surrounding parts on the LCD Drive P.C.B., and replace if necessary. Only Fan 2 stops. → Replace Fan 2. If still NG, check IC2703 and the surrounding parts on the LCD Drive P.C.B., and replace if necessary. Only Fan 3 stops. → Replace Fan 3. If still NG, check IC2704 and the surrounding parts on the LCD Drive P.C.B., and replace if necessary.
3)	DT+5V line on the Main P.C.B. error.	Check the following parts of the +5V line on the Main P.C.B. and the Digital Tuner P.C.B., and replace if necessary. • IC1102 and the surrounding parts (Main P.C.B.) • R6008, IC6001, and the surrounding parts (Main P.C.B) • +5V line and the surrounding parts (Digital Tuner P.C.B.) If still NG, the Power P.C.B. is defective. (Refer to "**CHECKING THE POWER P.C.B.**")
4)	Communication error I2C SERIAL DATA for between IC6001 (Pin 85) and IC5001 (Pin B22) on the Main P.C.B.	Check the following parts of the I2C SERIAL DATA line on the Main P.C.B., and replace if necessary. • IC5001, R5099, R6071, and the surrounding parts
5)	The temperature sensor (R2821) on the Thermistor 2 P.C.B. on the Lamp Top Panel is short or open.	Check the following parts on the Temperature Data 1 line on the LCD Drive P.C.B. and the Thermistor 2 P.C.B., and replace if necessary. • R2821 (Temperature Sensor on the Thermistor 2 P.C.B.),
6)	It indicates when the temperature detected by the Temperature Sensor (R2821) on Thermistor 2 P.C.B. exceeds 105 ˚C (221 ˚F). 1. The surrounding temperature of the place of use may be too high. 2. The vents on the rear may be blocked.	1. Relocate the unit to a proper location. • Do not place in direct sunlight or other sources of direct heat. • Do not place the unit in a humid or dusty location, or areas exposed to smoke or steam. (surrounding temperature should be between 0 ˚C (32 ˚F) and 35 ˚C (95 ˚F) and humidity should be between 20 % and 80 % (with no condensation).) • The vents are not blocked. It is recommended that a gap of at least 10 cm is left all around the unit even when it is placed inside a cabinet or between shelves. 2. Check if the fans are operating properly.
7)	Clogged Air Filter of the Fan Case Unit.	Clean the Air Filter of the Fan Case Unit. If still NG, replace Fan Case Unit (Fan 1). If still NG, check the following parts on the Filter Error Detection line on the LCD Drive P.C.B., and replace if necessary. • LVDS Cable between the Main P.C.B. and the LCD Drive P.C.B. • IC2301, IC2705, and the surrounding parts (LCD Drive P.C.B.)
8)	1. The Lamp is defective (crack). 2. The Power P.C.B. is defective.	1. Wait until the Lamp is cooled off and try to turn the power back on. If same error LED indication continues, remove the Lamp and visually inspect it. If it is cracked, it must be replaced. If the Lamp is OK, the Power P.C.B. is defective. (Refer to "**CHECKING THE BALLAST CIRCUIT**")
9)	When the Iris Mechanism fails to reach the objective angle of +/- 2° in two consective seconds.	Replace the Iris Unit.
10)	When power is turned on, the Iris Mechanism performs calibration to incorporate variations detected by the Hall Sensor. A maximum current (+) and (-) is supplied to the Motor and the Mechanism moves to the full-open/ full-close position. An error occurs when this angle is measured by the Hall Sensor and full-open/ full-close is not reached, or when the angle difference is outside the controllable range.	1. Replace the Iris Unit. 2. If still NG, replace IC9500, IC9501, IC9502, etc. on the Iris P.C.B.

How to solve problems indicated by the Error Indication of LED

(The symptom of all errors is that Lamp goes off or Lamp does not light up)

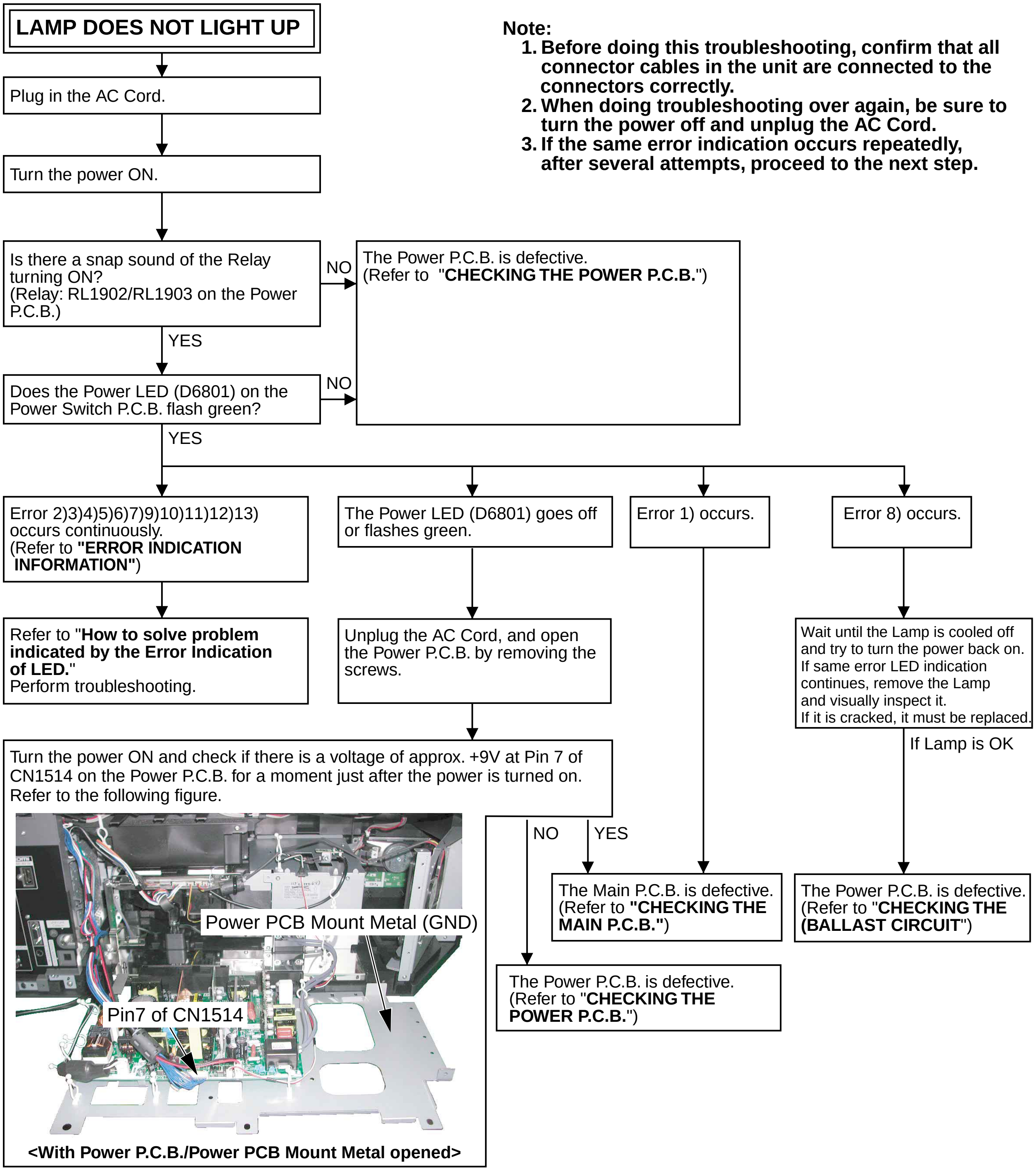
Note: Before performing the troubleshooting, confirm that all connector cables in the unit are connected correctly.

Error No.	Problem	Possible Solution
11)	Mis-installed Lamp Cover (the Lamp cover is open).	1. Check the Cover Switch P.C.B. If still NG, install the Lamp Cover Unit properly. 2. If still NG, check the following parts on Lamp Cover Open (H) signal line on the Main P.C.B., and replace if necessary. • LVDS Cable between the Main P.C.B. and the LCD Drive P.C.B. • IC6001, R6231, and the surrounding parts (Main P.C.B.). • SW2911 (Cover Switch P.C.B.)
12)	1. +17V line on the LCD Drive P.C.B. error. 2. +9V line on the LCD Drive P.C.B. error. 3. +5V line on the LCD Drive P.C.B. error.	1. Disconnect Connector CN2704 on the LCD Drive P.C.B. Turn the unit power on, check the voltage at pins of cable connector from the Main P.C.B. • Pin1: approx. +17V • Pin2: approx. +9V • Pin3: approx. +5V • Pin4: approx. +3.3V If NG, refer to "**CHECKING THE MAIN P.C.B.**" 2. If OK, peform the following steps: 1) +17V line on the LCD Drive P.C.B. error Check IC2301, R2317, and the surrounding parts (LCD Drive P.C.B.). 2) +9V line on the LCD Drive P.C.B. error Check IC2301, R2318, and the surrounding parts (LCD Drive P.C.B.). 3) +5V line on the LCD Drive P.C.B. error Check IC2301, R2308, and the surrounding parts (LCD Drive P.C.B.)

Note:

1. **Before doing this troubleshooting, confirm that all connector cables in the unit are connected to the connectors correctly.**
2. **When doing troubleshooting over again, be sure to turn the power off and unplug the AC Cord.**
3. **If the same error indication occurs repeatedly, after several attempts, proceed to the next step.**

LAMP DOES NOT LIGHT UP



Plug in the AC Cord.

Turn the power ON.

Is there a snap sound of the Relay turning ON? (Relay: RL1902/RL1903 on the Power P.C.B.)

NO → The Power P.C.B. is defective. (Refer to "**CHECKING THE POWER P.C.B.**")

YES

Does the Power LED (D6801) on the Power Switch P.C.B. flash green?

NO → The Power P.C.B. is defective. (Refer to "**CHECKING THE POWER P.C.B.**")

YES

Error 2)3)4)5)6)7)9)10)11)12)13) occurs continuously. (Refer to **"ERROR INDICATION INFORMATION"**)

Refer to "**How to solve problem indicated by the Error Indication of LED.**" Perform troubleshooting.

The Power LED (D6801) goes off or flashes green.

Unplug the AC Cord, and open the Power P.C.B. by removing the screws.

Turn the power ON and check if there is a voltage of approx. +9V at Pin 7 of CN1514 on the Power P.C.B. for a moment just after the power is turned on. Refer to the following figure.

<With Power P.C.B./Power PCB Mount Metal opened>

NO → The Power P.C.B. is defective. (Refer to "**CHECKING THE POWER P.C.B.**")

YES → The Main P.C.B. is defective. (Refer to "**CHECKING THE MAIN P.C.B.**")

Error 1) occurs.

The Main P.C.B. is defective. (Refer to "**CHECKING THE MAIN P.C.B.**")

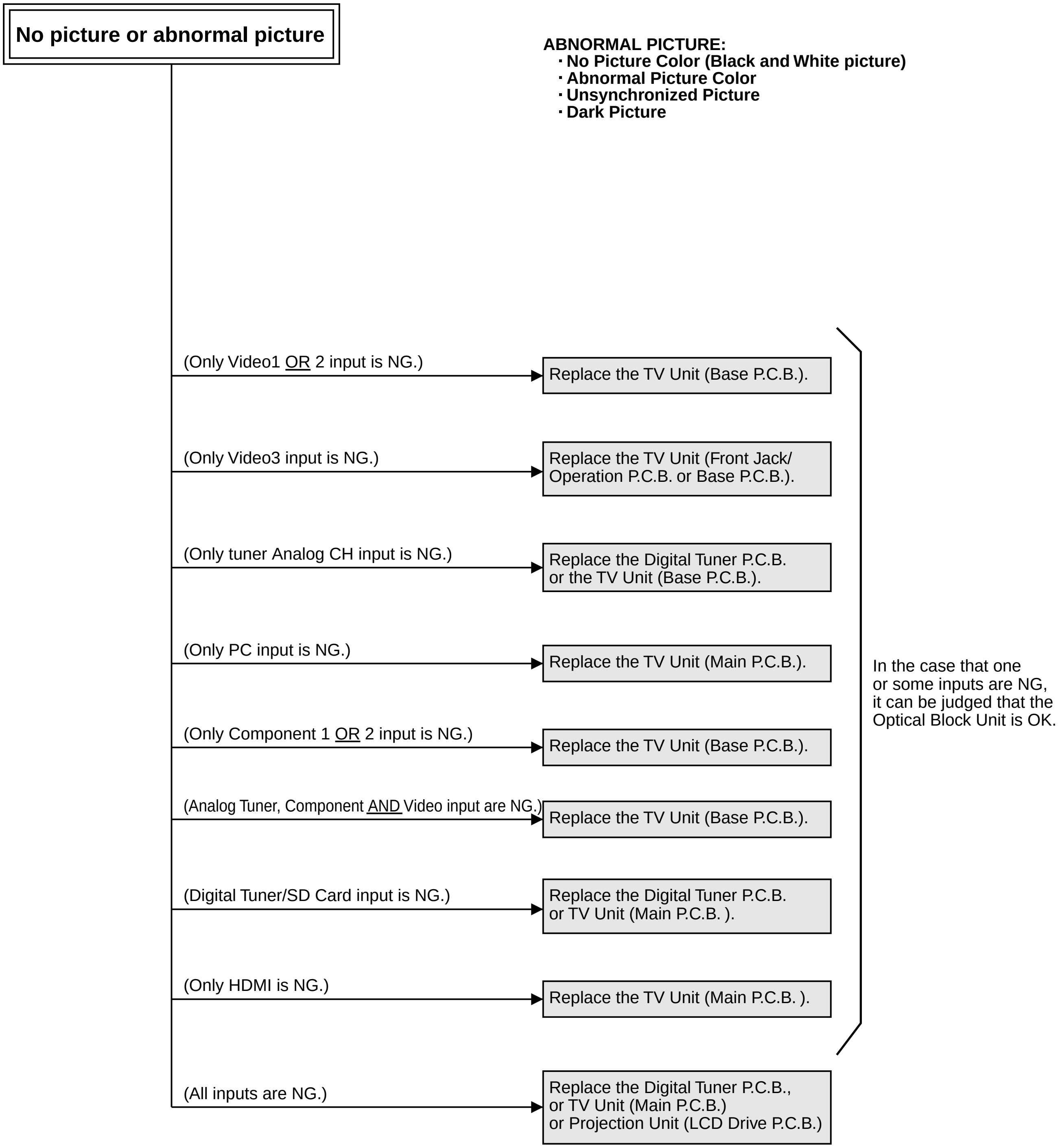
Error 8) occurs.

Wait until the Lamp is cooled off and try to turn the power back on. If same error LED indication continues, remove the Lamp and visually inspect it. If it is cracked, it must be replaced.

If Lamp is OK

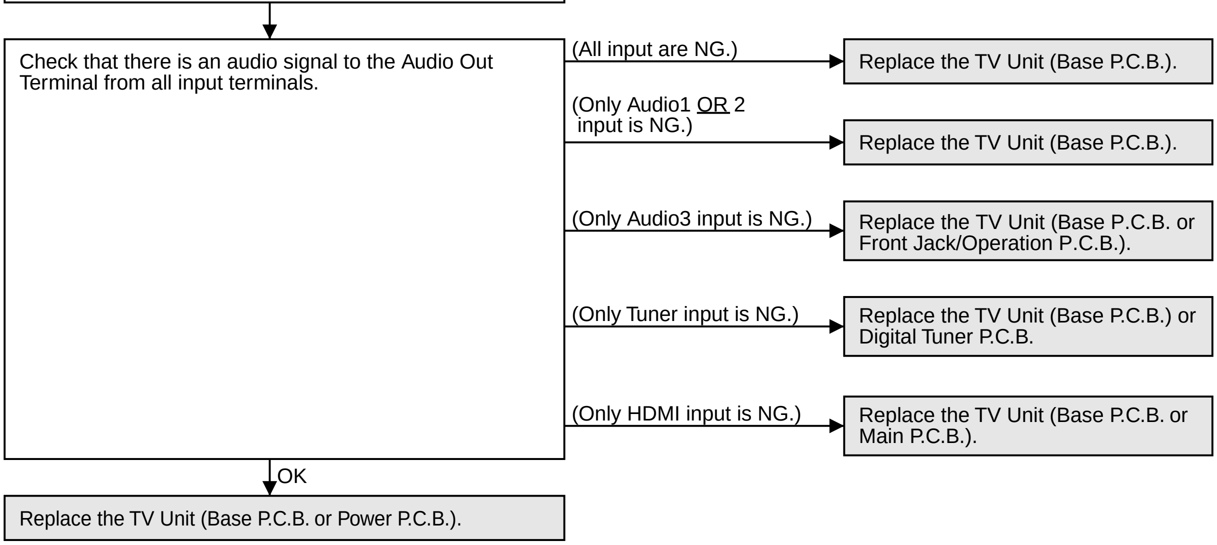
The Power P.C.B. is defective. (Refer to "**CHECKING THE (BALLAST CIRCUIT**")

HOW TO DETERMINE WHICH P.C.B. IS DEFECTIVE

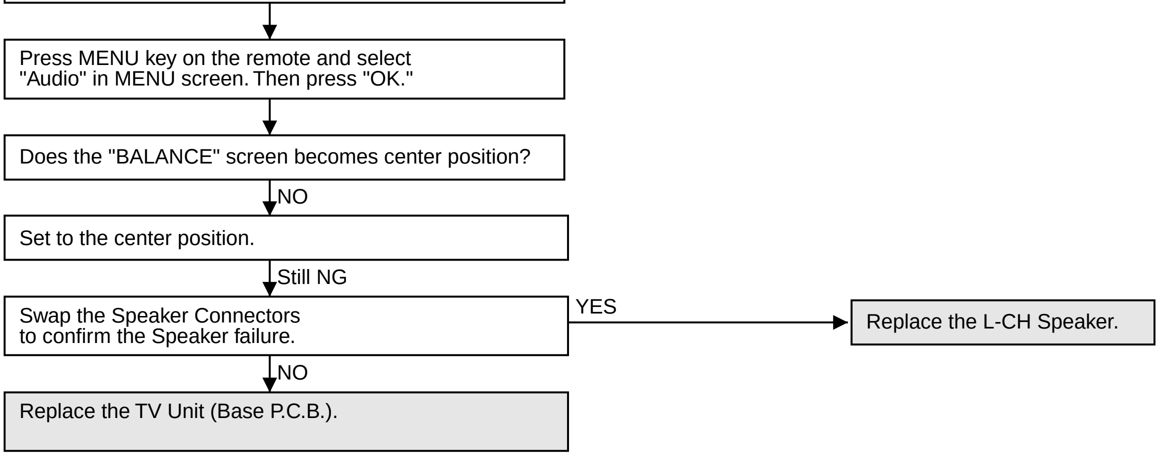

No picture or abnormal picture
(Only Video1 OR 2 input is NG.)
Replace the TV Unit (Base P.C.B.).
(Only Video3 input is NG.)
Replace the TV Unit (Front Jack/ Operation P.C.B. or Base P.C.B.).
(Only tuner Analog CH input is NG.)
Replace the Digital Tuner P.C.B. or the TV Unit (Base P.C.B.).
(Only PC input is NG.)
Replace the TV Unit (Main P.C.B.).
(Only Component 1 OR 2 input is NG.)
Replace the TV Unit (Base P.C.B.).
(Analog Tuner, Component AND Video input are NG.)
Replace the TV Unit (Base P.C.B.).
(Digital Tuner/SD Card input is NG.)
Replace the Digital Tuner P.C.B. or TV Unit (Main P.C.B.).
(Only HDMI is NG.)
Replace the TV Unit (Main P.C.B.).
(All inputs are NG.)
Replace the Digital Tuner P.C.B., or TV Unit (Main P.C.B.) or Projection Unit (LCD Drive P.C.B.)
In the case that one or some inputs are NG, it can be judged that the Optical Block Unit is OK.

ABNORMAL PICTURE:
- **No Picture Color (Black and White picture)**
- **Abnormal Picture Color**
- **Unsynchronized Picture**
- **Dark Picture**

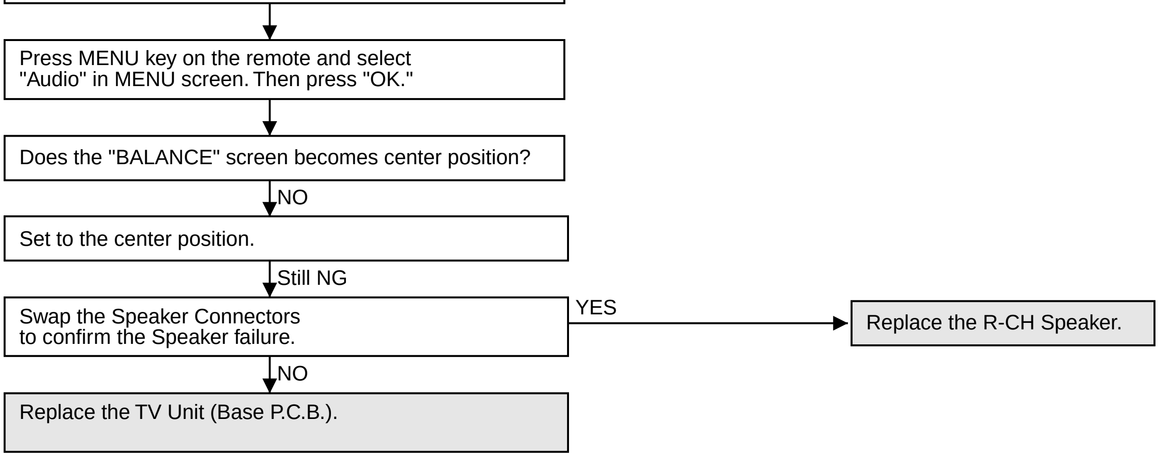
No sound from built-in both L-CH and R-CH Speakers


Check that there is an audio signal to the Audio Out Terminal from all input terminals.
(All input are NG.)
Replace the TV Unit (Base P.C.B.).
(Only Audio1 OR 2 input is NG.)
Replace the TV Unit (Base P.C.B.).
(Only Audio3 input is NG.)
Replace the TV Unit (Base P.C.B. or Front Jack/Operation P.C.B.).
(Only Tuner input is NG.)
Replace the TV Unit (Base P.C.B.) or Digital Tuner P.C.B.
(Only HDMI input is NG.)
Replace the TV Unit (Base P.C.B. or Main P.C.B.).
OK
Replace the TV Unit (Base P.C.B. or Power P.C.B.).

No sound from built-in L-CH Speaker only

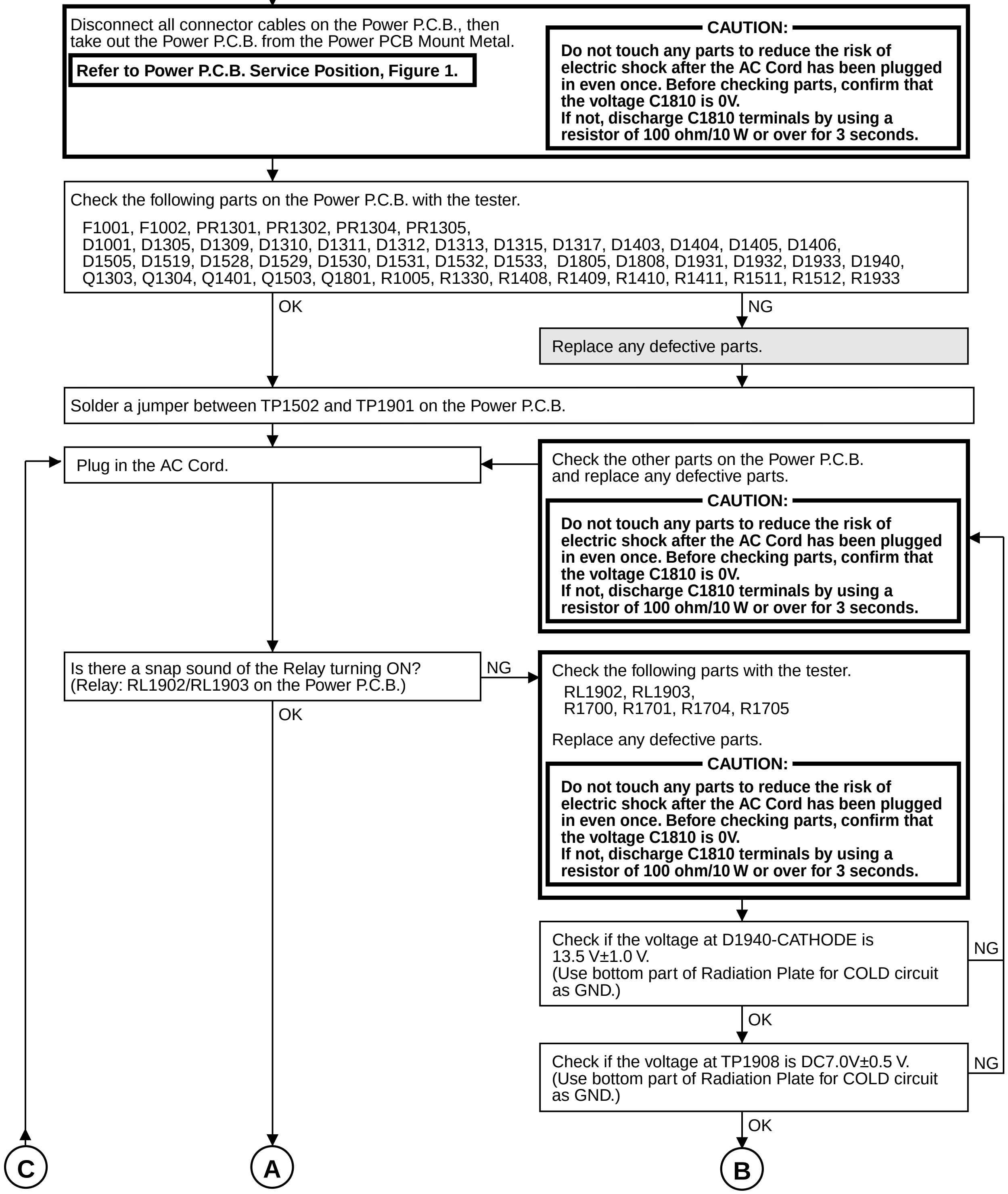

Press MENU key on the remote and select "Audio" in MENU screen. Then press "OK."
Does the "BALANCE" screen becomes center position?
NO
Set to the center position.
Still NG
Swap the Speaker Connectors to confirm the Speaker failure.
YES
Replace the L-CH Speaker.
NO
Replace the TV Unit (Base P.C.B.).

No sound from built-in R-CH Speaker only


Press MENU key on the remote and select "Audio" in MENU screen. Then press "OK."
Does the "BALANCE" screen becomes center position?
NO
Set to the center position.
Still NG
Swap the Speaker Connectors to confirm the Speaker failure.
YES
Replace the R-CH Speaker.
NO
Replace the TV Unit (Base P.C.B.).

CHECKING THE POWER P.C.B.

Note:
1. The Projection Unit includes the Power P.C.B.
2. Do not turn or adjust VRs (R1324, R1703, R1951).



Disconnect all connector cables on the Power P.C.B., then take out the Power P.C.B. from the Power PCB Mount Metal.

Refer to Power P.C.B. Service Position, Figure 1.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Check the following parts on the Power P.C.B. with the tester.

F1001, F1002, PR1301, PR1302, PR1304, PR1305,
D1001, D1305, D1309, D1310, D1311, D1312, D1313, D1315, D1317, D1403, D1404, D1405, D1406,
D1505, D1519, D1528, D1529, D1530, D1531, D1532, D1533, D1805, D1808, D1931, D1932, D1933, D1940,
Q1303, Q1304, Q1401, Q1503, Q1801, R1005, R1330, R1408, R1409, R1410, R1411, R1511, R1512, R1933

Replace any defective parts.

Solder a jumper between TP1502 and TP1901 on the Power P.C.B.

Plug in the AC Cord.

Check the other parts on the Power P.C.B. and replace any defective parts.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Is there a snap sound of the Relay turning ON?
(Relay: RL1902/RL1903 on the Power P.C.B.)

Check the following parts with the tester.

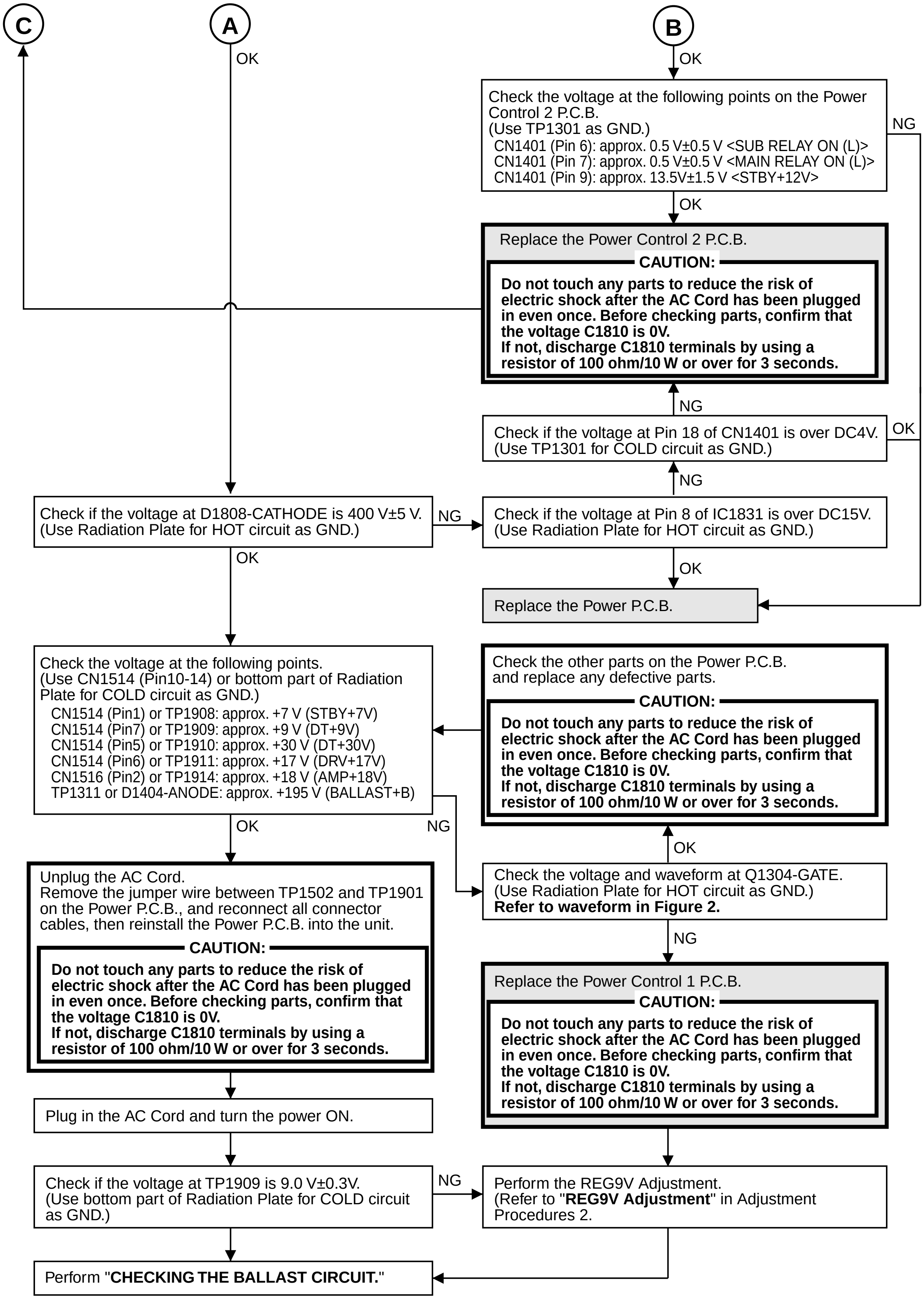
RL1902, RL1903,
R1700, R1701, R1704, R1705

Replace any defective parts.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Check if the voltage at D1940-CATHODE is 13.5 V±1.0 V.
(Use bottom part of Radiation Plate for COLD circuit as GND.)

Check if the voltage at TP1908 is DC7.0V±0.5 V.
(Use bottom part of Radiation Plate for COLD circuit as GND.)



Check the voltage at the following points on the Power Control 2 P.C.B.
(Use TP1301 as GND.)
CN1401 (Pin 6): approx. 0.5 V±0.5 V <SUB RELAY ON (L)>
CN1401 (Pin 7): approx. 0.5 V±0.5 V <MAIN RELAY ON (L)>
CN1401 (Pin 9): approx. 13.5V±1.5 V <STBY+12V>

Replace the Power Control 2 P.C.B.

CAUTION:

Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Check if the voltage at Pin 18 of CN1401 is over DC4V.
(Use TP1301 for COLD circuit as GND.)

Check if the voltage at D1808-CATHODE is 400 V±5 V.
(Use Radiation Plate for HOT circuit as GND.)

Check if the voltage at Pin 8 of IC1831 is over DC15V.
(Use Radiation Plate for HOT circuit as GND.)

Replace the Power P.C.B.

Check the voltage at the following points.
(Use CN1514 (Pin10-14) or bottom part of Radiation Plate for COLD circuit as GND.)
CN1514 (Pin1) or TP1908: approx. +7 V (STBY+7V)
CN1514 (Pin7) or TP1909: approx. +9 V (DT+9V)
CN1514 (Pin5) or TP1910: approx. +30 V (DT+30V)
CN1514 (Pin6) or TP1911: approx. +17 V (DRV+17V)
CN1516 (Pin2) or TP1914: approx. +18 V (AMP+18V)
TP1311 or D1404-ANODE: approx. +195 V (BALLAST+B)

Check the other parts on the Power P.C.B. and replace any defective parts.

CAUTION:

Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Unplug the AC Cord.
Remove the jumper wire between TP1502 and TP1901 on the Power P.C.B., and reconnect all connector cables, then reinstall the Power P.C.B. into the unit.

CAUTION:

Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Check the voltage and waveform at Q1304-GATE.
(Use Radiation Plate for HOT circuit as GND.)
Refer to waveform in Figure 2.

Replace the Power Control 1 P.C.B.

CAUTION:

Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Plug in the AC Cord and turn the power ON.

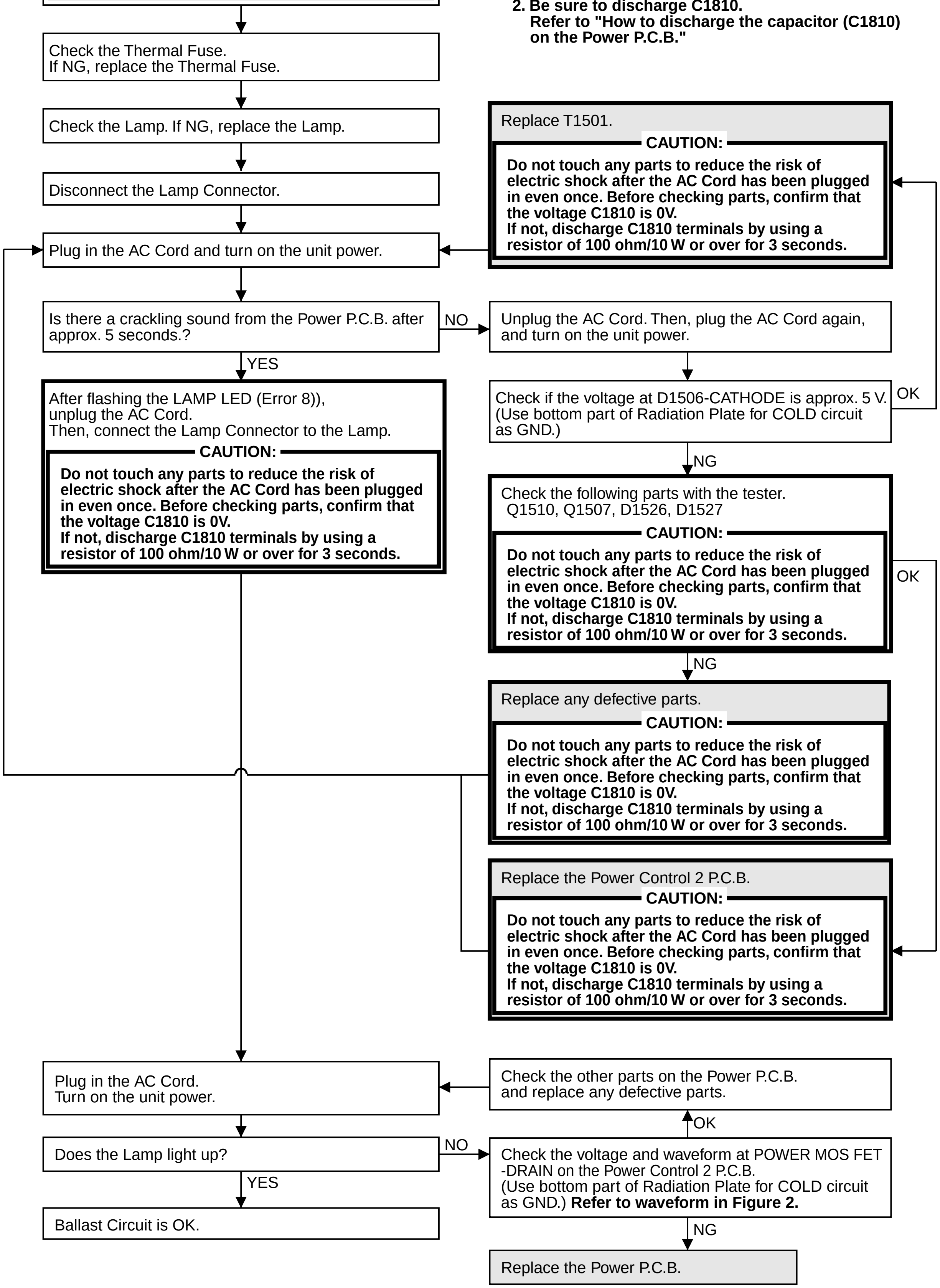
Check if the voltage at TP1909 is 9.0 V±0.3V.
(Use bottom part of Radiation Plate for COLD circuit as GND.)

Perform the REG9V Adjustment.
(Refer to "**REG9V Adjustment**" in Adjustment Procedures 2.

Perform "**CHECKING THE BALLAST CIRCUIT.**"

CHECKING THE BALLAST CIRCUIT

Note:
1. There is a Ballast Circuit on the Power P.C.B.
2. Be sure to discharge C1810.
Refer to "How to discharge the capacitor (C1810) on the Power P.C.B."



Check the Thermal Fuse.
If NG, replace the Thermal Fuse.

Check the Lamp. If NG, replace the Lamp.

Disconnect the Lamp Connector.

Plug in the AC Cord and turn on the unit power.

Is there a crackling sound from the Power P.C.B. after approx. 5 seconds.?

After flashing the LAMP LED (Error 8)), unplug the AC Cord.
Then, connect the Lamp Connector to the Lamp.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Unplug the AC Cord. Then, plug the AC Cord again, and turn on the unit power.

Check if the voltage at D1506-CATHODE is approx. 5 V.
(Use bottom part of Radiation Plate for COLD circuit as GND.)

Replace T1501.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Check the following parts with the tester.
Q1510, Q1507, D1526, D1527

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Replace any defective parts.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Replace the Power Control 2 P.C.B.

CAUTION:
Do not touch any parts to reduce the risk of electric shock after the AC Cord has been plugged in even once. Before checking parts, confirm that the voltage C1810 is 0V.
If not, discharge C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.

Plug in the AC Cord.
Turn on the unit power.

Does the Lamp light up?

Ballast Circuit is OK.

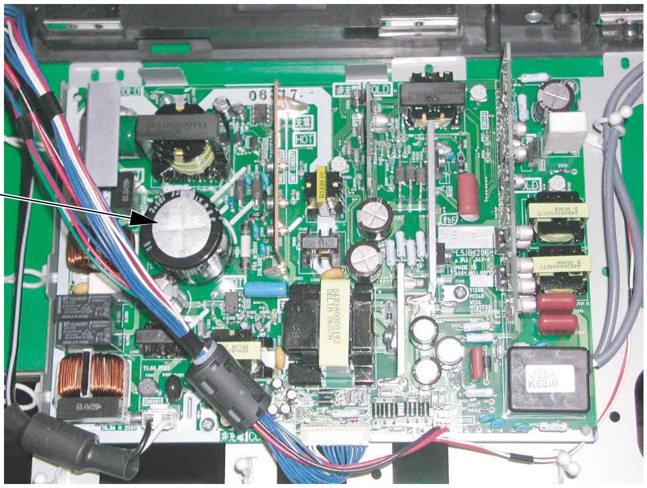
Check the voltage and waveform at POWER MOS FET -DRAIN on the Power Control 2 P.C.B.
(Use bottom part of Radiation Plate for COLD circuit as GND.) **Refer to waveform in Figure 2.**

Check the other parts on the Power P.C.B. and replace any defective parts.

Replace the Power P.C.B.

CAUTION:

High voltage exists on the Power P.C.B. While removing Power P.C.B., do not touch any parts on the board. Hold the edge of the board when removing it.

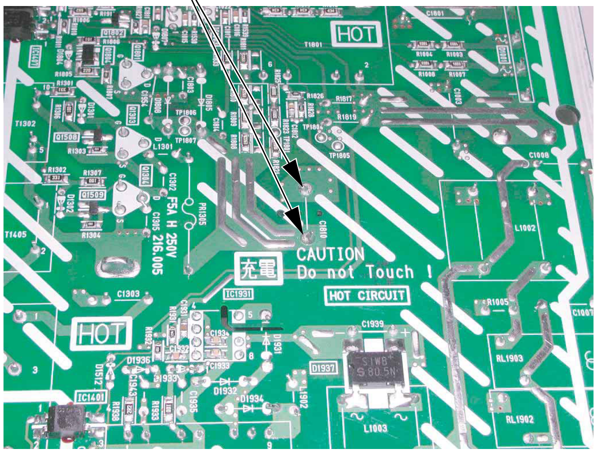


C1810:
High voltage
generated.
(approx. 400 V)

How to discharge the capacitor (C1810) on the Power P.C.B.

High voltage exists in C1810 after the AC Cord has been plugged in even once.
Before servicing, be sure to discharge the C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.
Or, discharge D1808 cathode to the Radiation Plate (HOT GND).

C1810 terminals



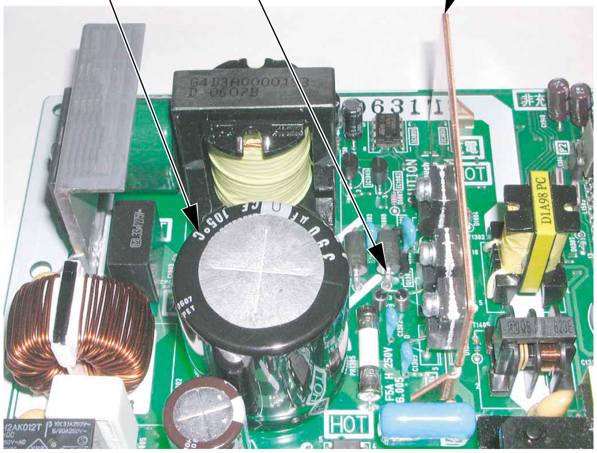
(foil side)

OR

D1808
cathode

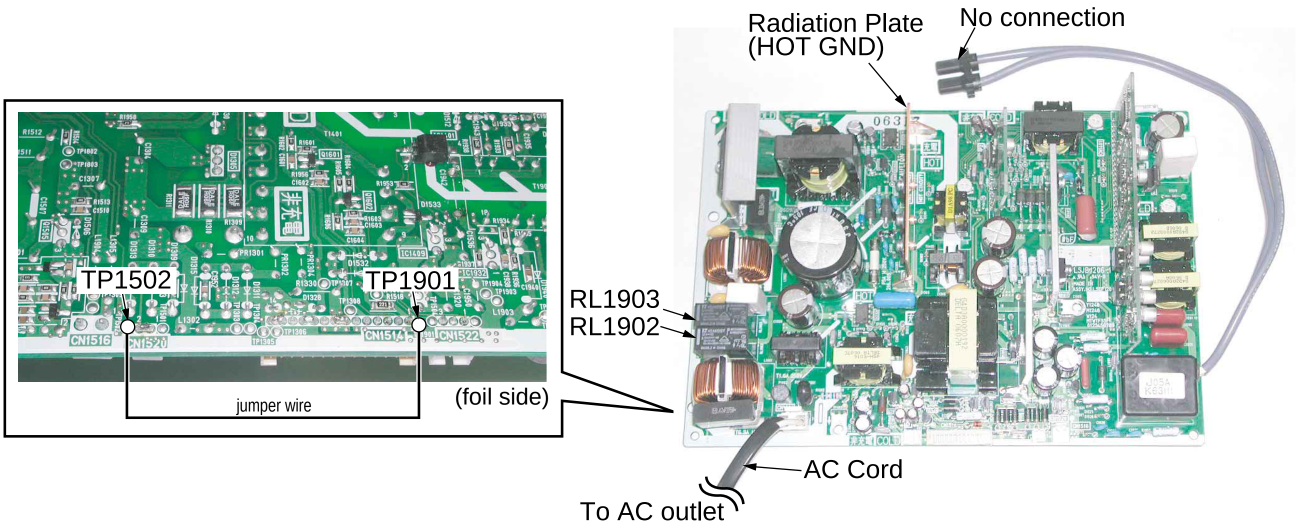
Radiation Plate
(HOT GND)

C1810

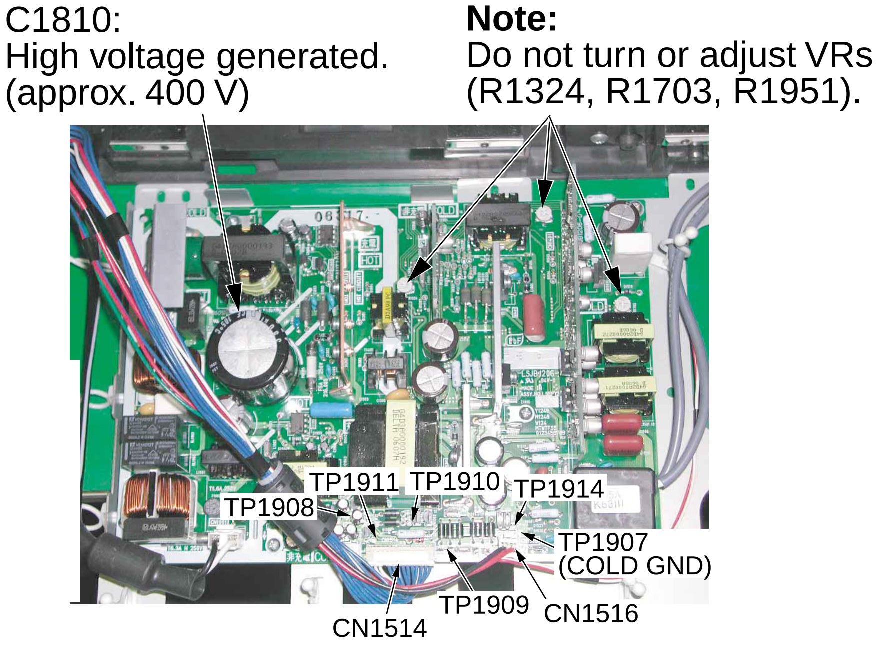


(component side)

Power P.C.B. Service Position


Radiation Plate
(HOT GND)
No connection
TP1502
TP1901
jumper wire
(foil side)
RL1903
RL1902
AC Cord
To AC outlet

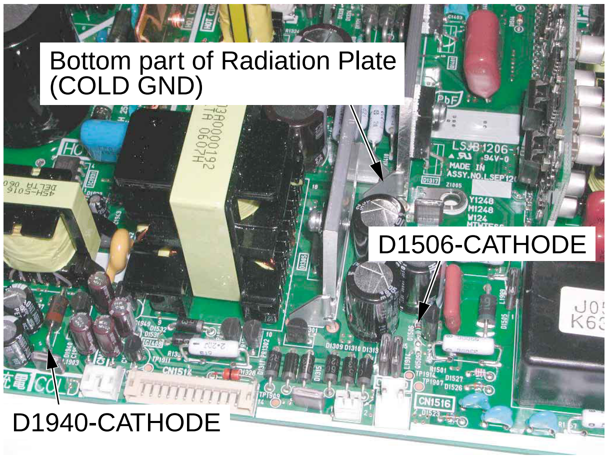
Test Points for checking the voltage on the Power P.C.B.

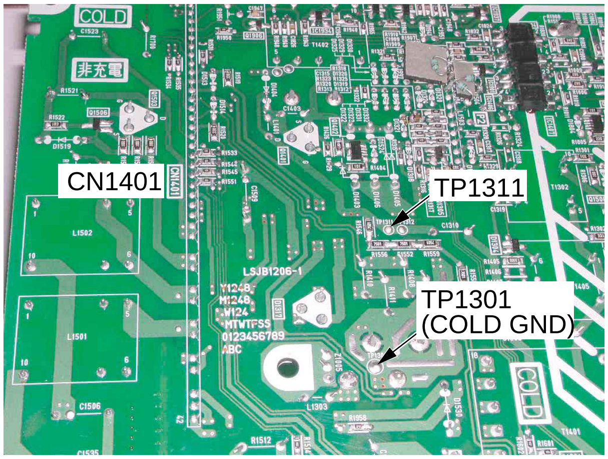

C1810:
High voltage generated.
(approx. 400 V)
Note:
Do not turn or adjust VRs
(R1324, R1703, R1951).
TP1911
TP1910
TP1914
TP1908
TP1907
(COLD GND)
TP1909
CN1516
CN1514

Note: For reference, this illustration shows Power P.C.B./Power Mount Metal opened.

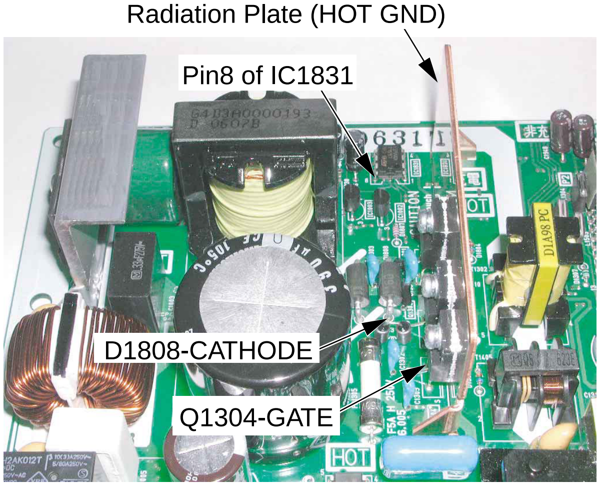
Figure. 1

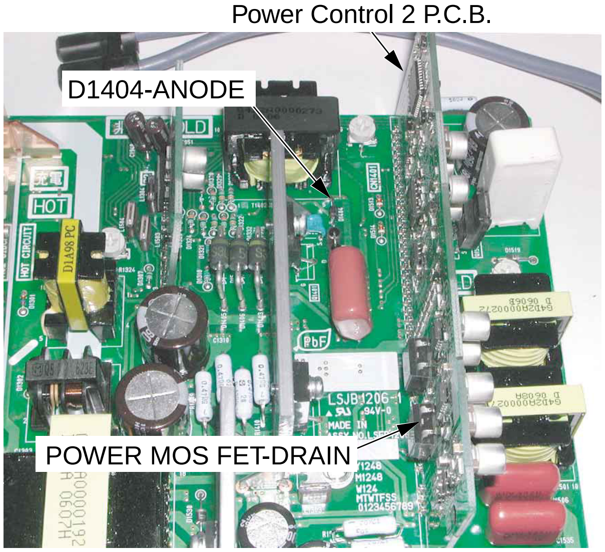
Test Points for checking the voltage on the Power P.C.B.

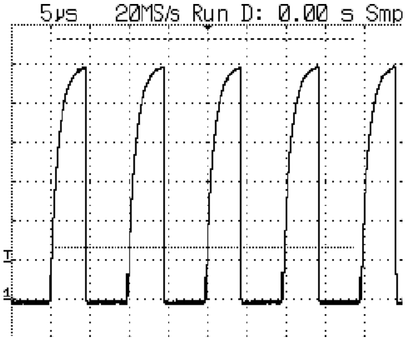

Bottom part of Radiation Plate
(COLD GND)
D1506-CATHODE
D1940-CATHODE


CN1401
TP1311
TP1301
(COLD GND)

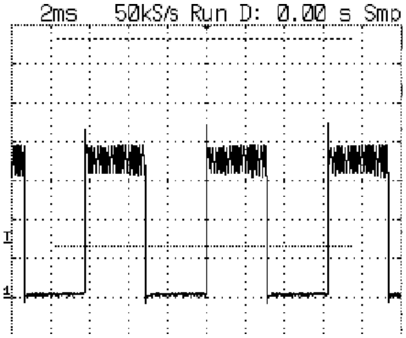
(foil side)


Radiation Plate (HOT GND)
Pin8 of IC1831
D1808-CATHODE
Q1304-GATE


Power Control 2 P.C.B.
D1404-ANODE
POWER MOS FET-DRAIN



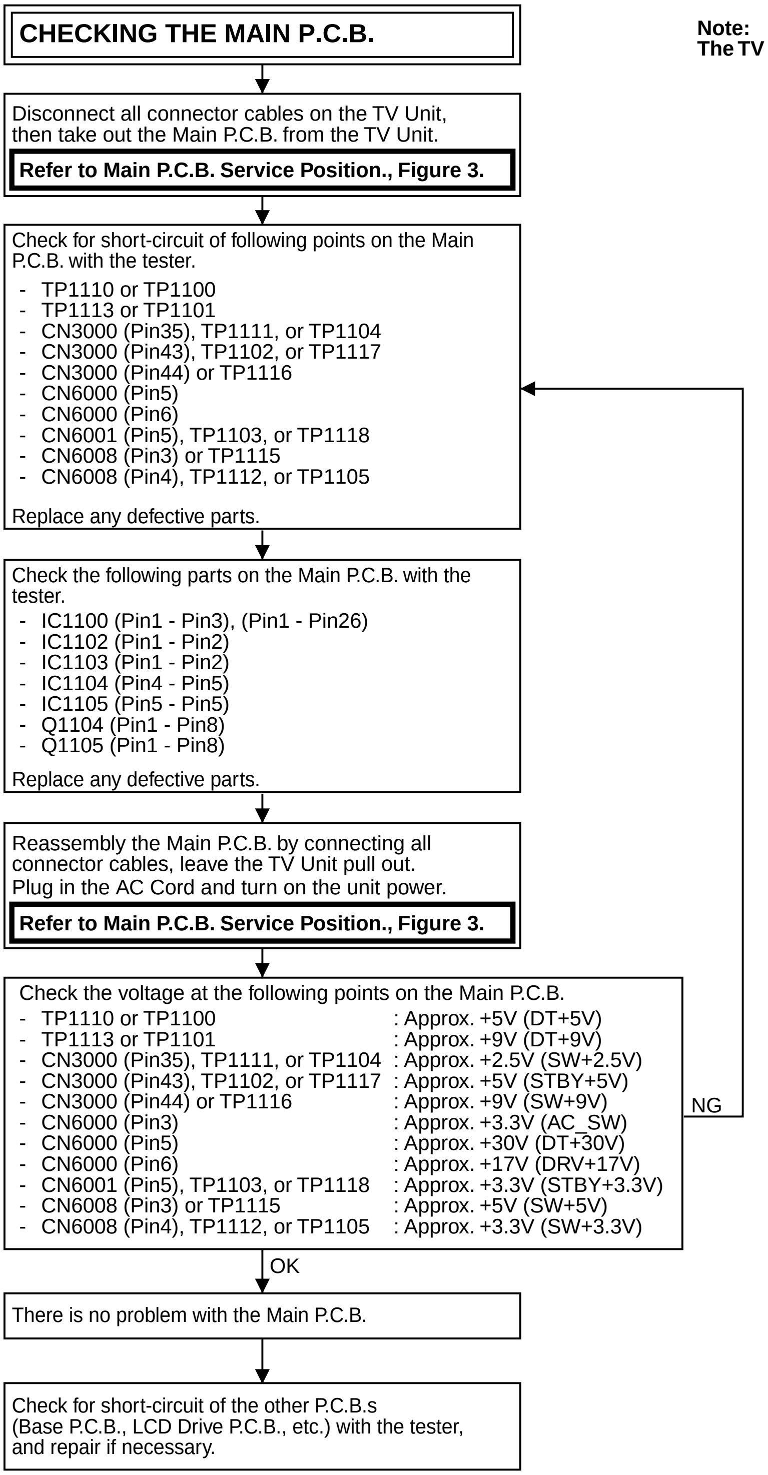
Q1304-GATE
2.0 V 5 µs



POWER MOS FET-DRAIN
20 V 2 ms

Figure. 2

Note:
The TV Unit includes the Main P.C.B.



CHECKING THE MAIN P.C.B.

Disconnect all connector cables on the TV Unit, then take out the Main P.C.B. from the TV Unit.

Refer to Main P.C.B. Service Position., Figure 3.

Check for short-circuit of following points on the Main P.C.B. with the tester.

- TP1110 or TP1100
- TP1113 or TP1101
- CN3000 (Pin35), TP1111, or TP1104
- CN3000 (Pin43), TP1102, or TP1117
- CN3000 (Pin44) or TP1116
- CN6000 (Pin5)
- CN6000 (Pin6)
- CN6001 (Pin5), TP1103, or TP1118
- CN6008 (Pin3) or TP1115
- CN6008 (Pin4), TP1112, or TP1105

Replace any defective parts.

Check the following parts on the Main P.C.B. with the tester.

- IC1100 (Pin1 - Pin3), (Pin1 - Pin26)
- IC1102 (Pin1 - Pin2)
- IC1103 (Pin1 - Pin2)
- IC1104 (Pin4 - Pin5)
- IC1105 (Pin5 - Pin5)
- Q1104 (Pin1 - Pin8)
- Q1105 (Pin1 - Pin8)

Replace any defective parts.

Reassembly the Main P.C.B. by connecting all connector cables, leave the TV Unit pull out.
Plug in the AC Cord and turn on the unit power.

Refer to Main P.C.B. Service Position., Figure 3.

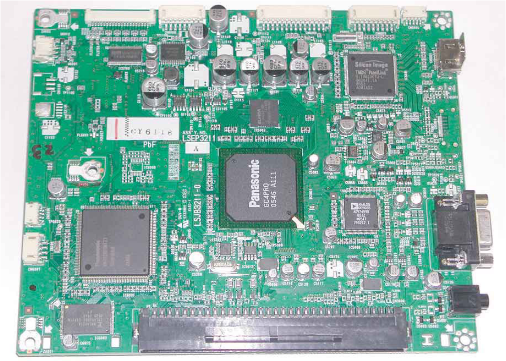
Check the voltage at the following points on the Main P.C.B.

- TP1110 or TP1100 : Approx. +5V (DT+5V)
- TP1113 or TP1101 : Approx. +9V (DT+9V)
- CN3000 (Pin35), TP1111, or TP1104 : Approx. +2.5V (SW+2.5V)
- CN3000 (Pin43), TP1102, or TP1117 : Approx. +5V (STBY+5V)
- CN3000 (Pin44) or TP1116 : Approx. +9V (SW+9V)
- CN6000 (Pin3) : Approx. +3.3V (AC_SW)
- CN6000 (Pin5) : Approx. +30V (DT+30V)
- CN6000 (Pin6) : Approx. +17V (DRV+17V)
- CN6001 (Pin5), TP1103, or TP1118 : Approx. +3.3V (STBY+3.3V)
- CN6008 (Pin3) or TP1115 : Approx. +5V (SW+5V)
- CN6008 (Pin4), TP1112, or TP1105 : Approx. +3.3V (SW+3.3V)

There is no problem with the Main P.C.B.

Check for short-circuit of the other P.C.B.s (Base P.C.B., LCD Drive P.C.B., etc.) with the tester, and repair if necessary.

Main P.C.B. Service Position



Test Points for checking the voltage on the Main P.C.B.

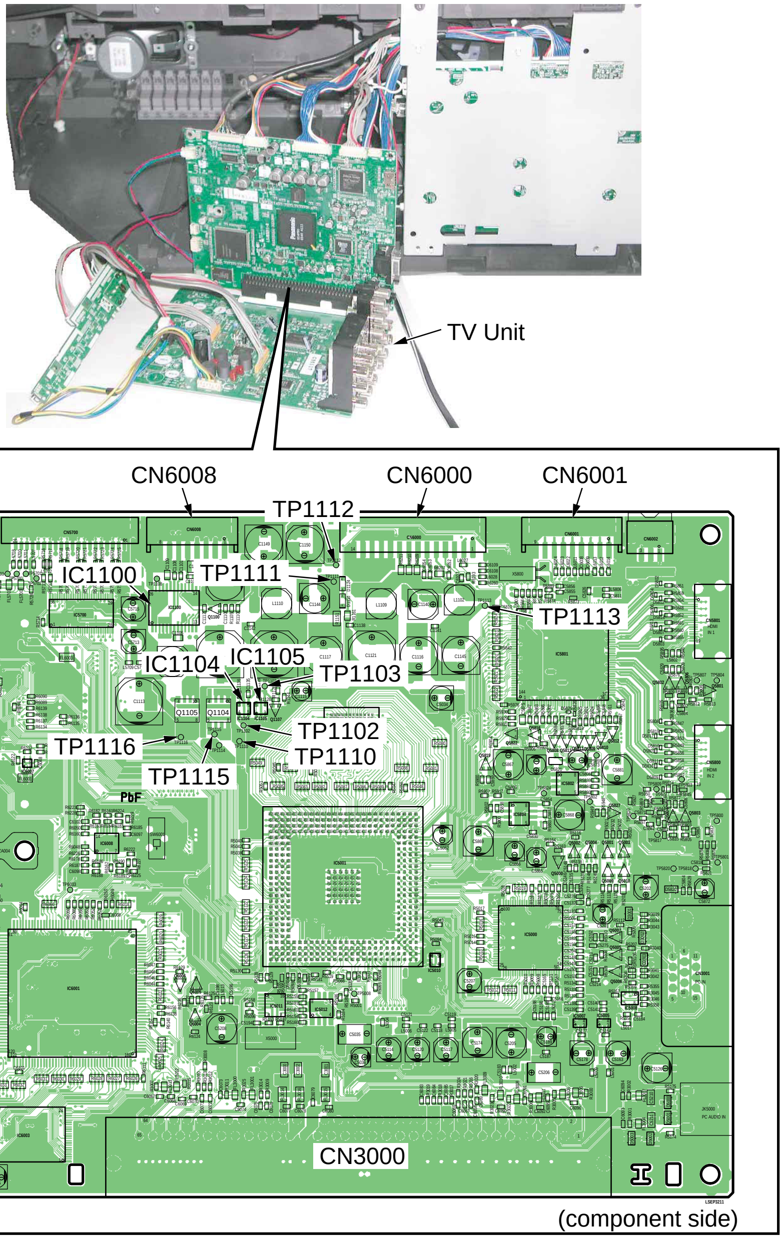
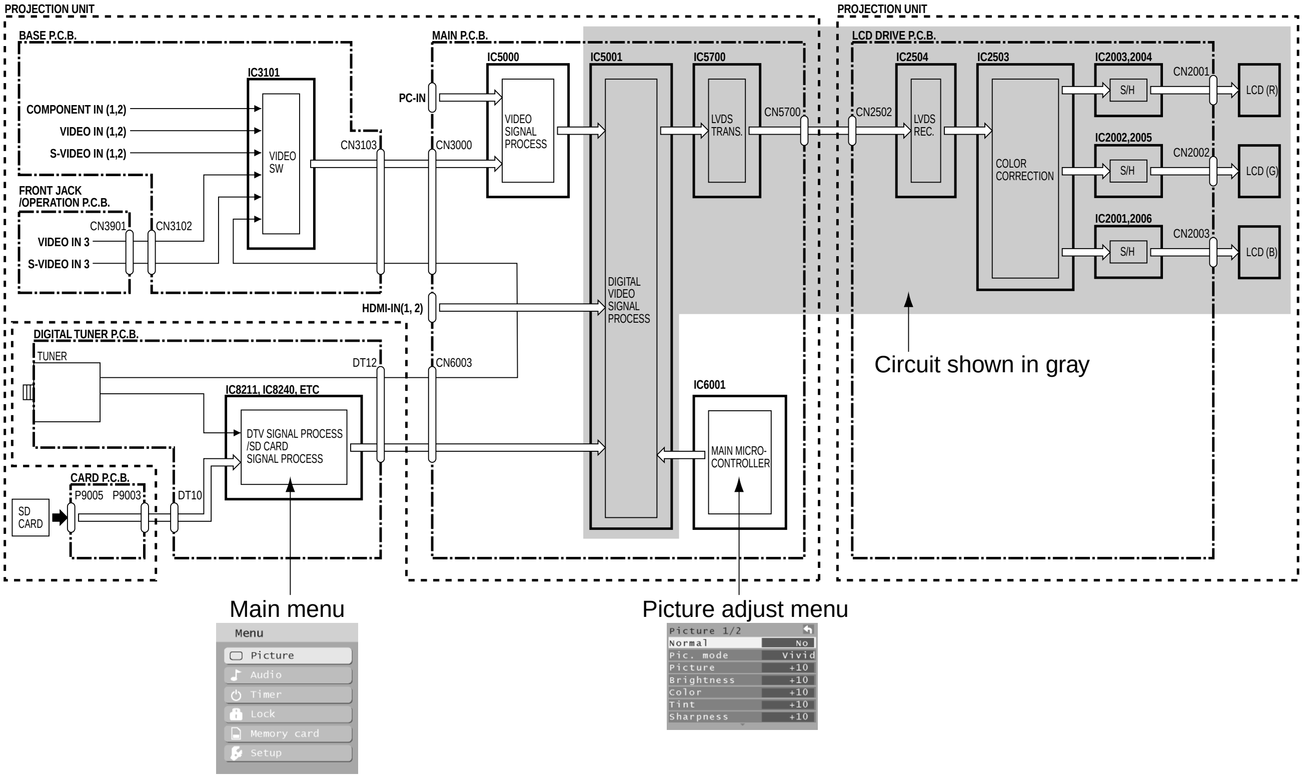

TV Unit
CN6008
CN6000
CN6001
TP1112
IC1100
TP1111
TP1113
IC1104
IC1105
TP1103
TP1102
TP1110
TP1116
TP1115
CN3000
(component side)

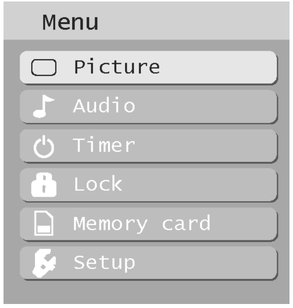
Figure. 3

Tips for determining defective circuit in the case of picture problem


PROJECTION UNIT
BASE P.C.B.
COMPONENT IN (1,2)
VIDEO IN (1,2)
S-VIDEO IN (1,2)
IC3101
VIDEO SW
FRONT JACK /OPERATION P.C.B.
CN3901
CN3102
VIDEO IN 3
S-VIDEO IN 3
CN3103
MAIN P.C.B.
PC-IN
CN3000
IC5000
VIDEO SIGNAL PROCESS
IC5001
DIGITAL VIDEO SIGNAL PROCESS
IC5700
LVDS TRANS.
CN5700
HDMI-IN(1, 2)
DIGITAL TUNER P.C.B.
TUNER
DT12
CN6003
IC8211, IC8240, ETC
DTV SIGNAL PROCESS /SD CARD SIGNAL PROCESS
CARD P.C.B.
P9005
P9003
DT10
SD CARD
IC6001
MAIN MICRO-CONTROLLER
PROJECTION UNIT
LCD DRIVE P.C.B.
CN2502
IC2504
LVDS REC.
IC2503
COLOR CORRECTION
IC2003,2004
IC2002,2005
IC2001,2006
S/H
S/H
S/H
CN2001
CN2002
CN2003
LCD (R)
LCD (G)
LCD (B)
Circuit shown in gray
Main menu
Picture adjust menu

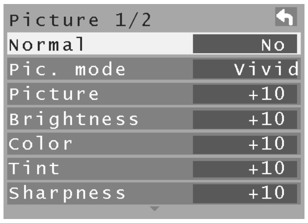
1) Input the signal and display it.
   [Input picture is not displayed normally.]
2) Press MENU key to display the Main menu.

Main menu


Menu
Picture
Audio
Timer
Lock
Memory card
Setup

3) Press OK key to select Picture adjust menu.

Picture adjust menu



Picture 1/2

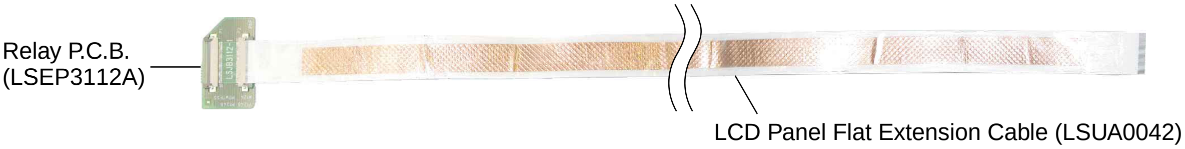
Normal	No
Pic. mode	Vivid
Picture	+10
Brightness	+10
Color	+10
Tint	+10
Sharpness	+10

4) If the Picture adjust menu is displayed normally, the circuit shown in gray is judged OK.
   If the Picture adjust menu is not displayed normally, something is wrong with the circuit shown in gray.
   (Most possibly: Projection Unit)

8 Service Fixture & Tools

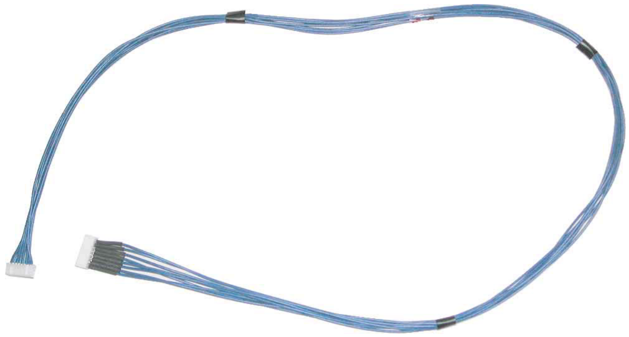
8.1. Service Fixture and Tools

LSEP3112A **Relay P.C.B.**
LSUA0042 **LCD Panel Flat Extension Cable**

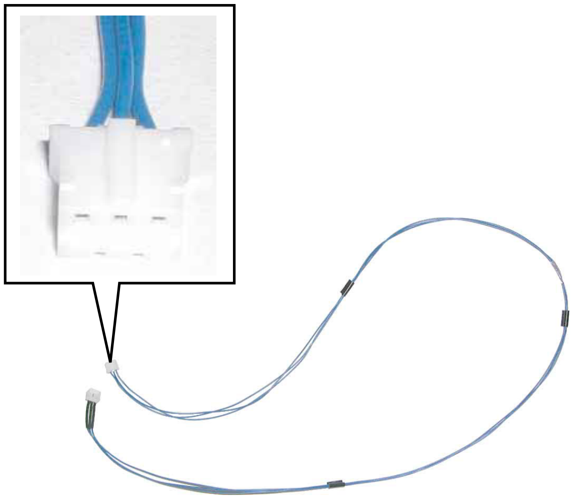

Relay P.C.B.
(LSEP3112A)
LCD Panel Flat Extension Cable (LSUA0042)

Note:
1) 3 of each are required for servicing.
2) Extension Cable-5 which was included in the 2002 model checker can be used for Relay P.C.B. (LSEP3112A) and LCD Panel Flat Extension Cable (LSUA0042).

LSUA0038 **Power Extension Cable**

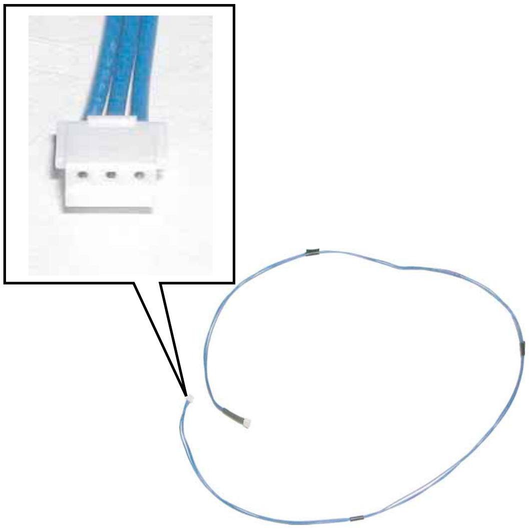


LSUA0039 **Fan1,3 Extension Cable**

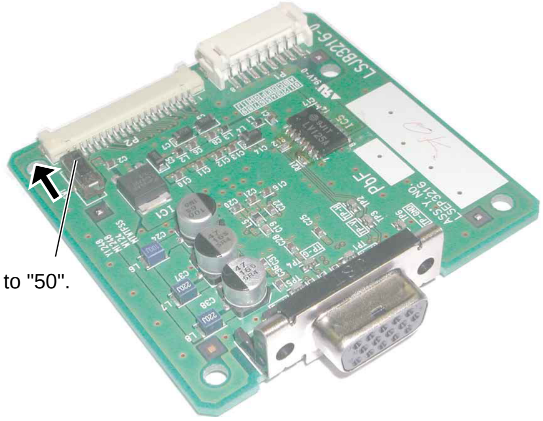


Note:
2 of each are required for servicing.

LSUA0040 **Fan2 Extension Cable**



LSEP3216A **Monitor P.C.B.**

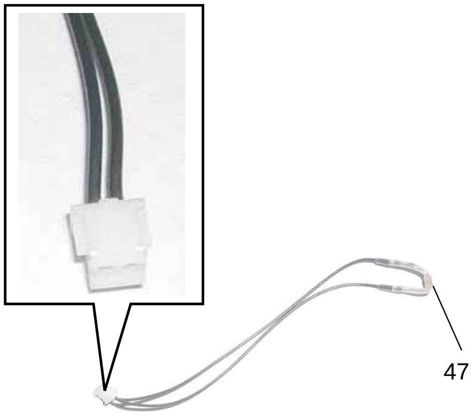


SW1 should be set to "50".

LSUA0041 **Cover Switch Defeat Cable**

Note:
A replacement part (LSJA0476, LSJA0551), which is shorted, can be used for this service tool.

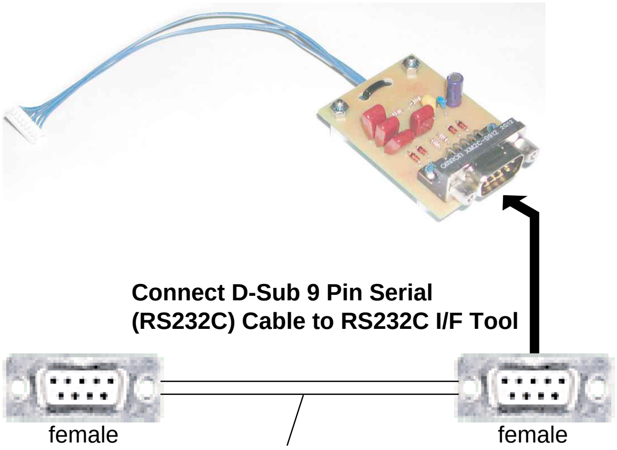
LSUA0013 **Thermistor 2 Defeat Cable**



47k ohm

Note:
Replacement part (LSJA0533, LSJA0478), to which a 47k ohm resistor has been attached, can be used for this service tool.

LSUA0043 **RS232C I/F Tool**



Connect D-Sub 9 Pin Serial (RS232C) Cable to RS232C I/F Tool

female

female

D-Sub 9 Pin Serial (RS232C) Cable: Purchase locally

RS232C Connecting tool
(For 2002 models (PT-40LC12/45LC12))

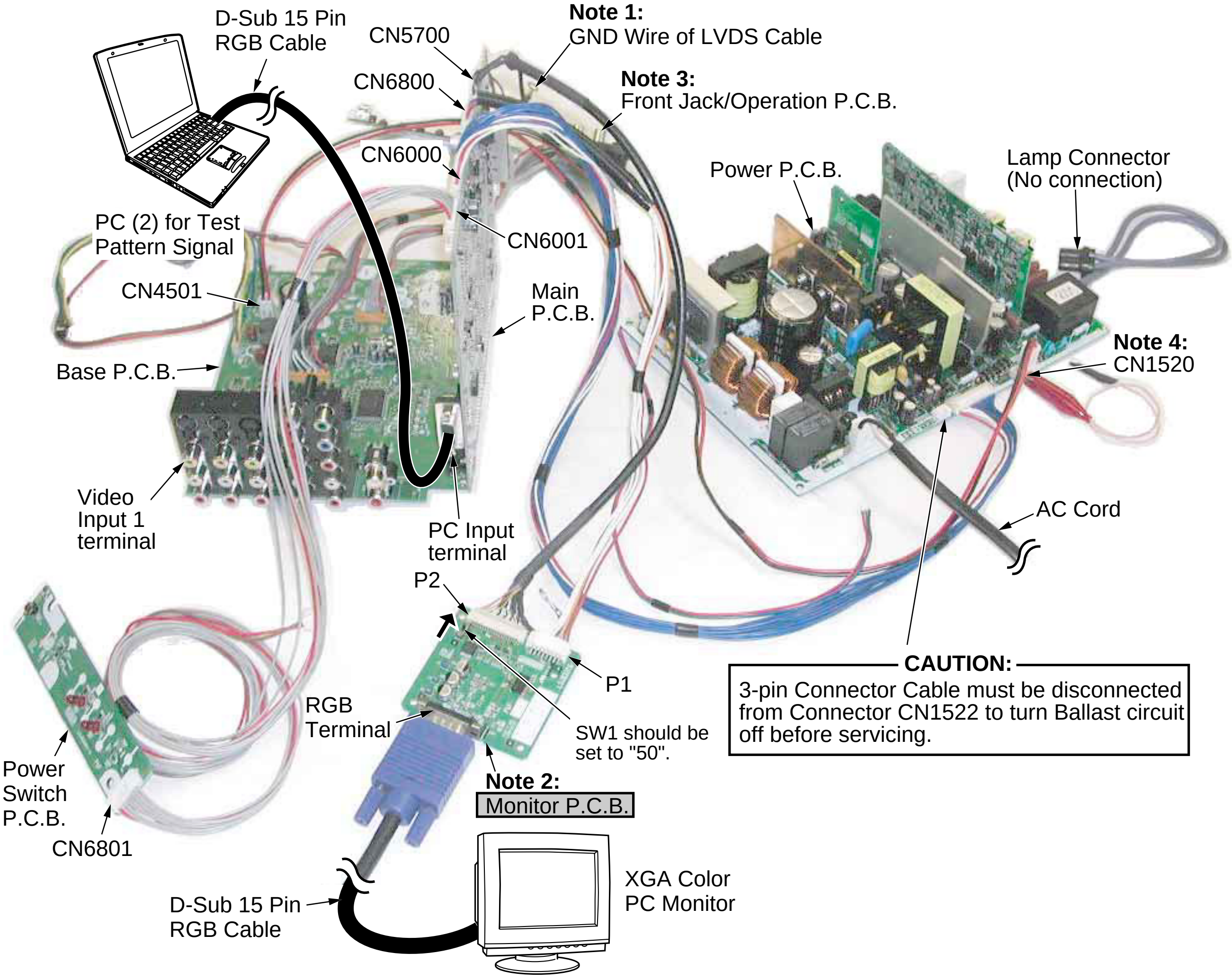
Note:
RS232C Connecting tool which was included in the 2002 model checker as shown above can be used for both RS232C I/F Tool (LSUA0043) and D-Sub 9 Pin Serial (RS232C) Cable.

8.2. Service Position

MAIN P.C.B. CHECK

It is possible to check the Main P.C.B. and also to check the Front Jack/Operation P.C.B., the Base P.C.B. and the Power P.C.B. by using the Monitor P.C.B. without connecting the Projection Unit.

The following service tool is required:	The following equipment is required:
· Monitor P.C.B. (LSEP3216A)	· XGA Color PC Monitor · D-Sub 15 Pin RGB Cable (for connecting the Monitor P.C.B.) · PC (2) for Test Pattern Signal · D-Sub 15 Pin RGB Cable (for connecting the PC Input Terminal)


D-Sub 15 Pin
RGB Cable
CN5700
Note 1:
GND Wire of LVDS Cable
CN6800
Note 3:
Front Jack/Operation P.C.B.
CN6000
Power P.C.B.
Lamp Connector
(No connection)
PC (2) for Test
Pattern Signal
CN6001
CN4501
Main
P.C.B.
Note 4:
CN1520
Base P.C.B.
AC Cord
Video
Input 1
terminal
PC Input
terminal
P2
P1
RGB
Terminal
SW1 should be
set to "50".
Note 2:
Monitor P.C.B.
Power
Switch
P.C.B.
CN6801
XGA Color
PC Monitor
D-Sub 15 Pin
RGB Cable

CAUTION:
3-pin Connector Cable must be disconnected from Connector CN1522 to turn Ballast circuit off before servicing.

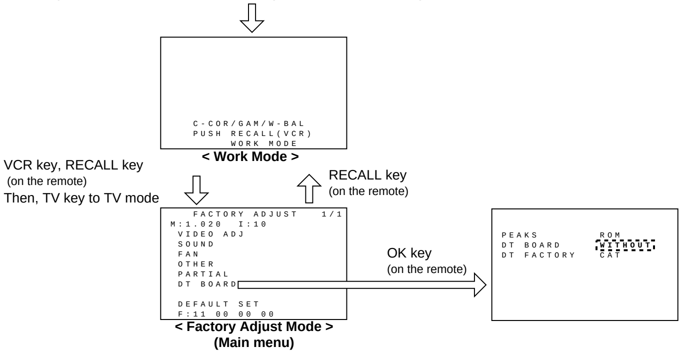
Fig. S1-1

Note for Service Position (1):

1. It is not necessary to connect the GND Wire of the LVDS Cable when servicing.
2. Any error detect functions such as Fan stop, temperature, etc. are defeated on the Monitor P.C.B.
   Also, SW1 on the Monitor P.C.B. should be set to "50."
3. When changing the input mode, point a remote at IR receiver on the Front Jack/Operation P.C.B.
4. When servicing without the Thermal Fuse connected:
   Short CN1520 by clip so as not to bend the pins. Or, solder a jumper between pin1 of CN1520 and GND (Foil side).
5. For operation stability without the Digital Tuner P.C.B. installed, be sure to perform either a) or b) in this position before servicing.
   a) Change the DT BOARD mode from "WITH" to "**WITHOUT**."
      (While DT BOARD is in "WITHOUT" mode, it can be serviced even if Work Mode is released.)
      After servicing, be sure to return DT BOARD to "WITH" mode.
   b) Or, enter Work Mode and wait for over 10 seconds without the Digital Tuner P.C.B. installed. However, in this case, the mode indication is "WITH" continuously.

Work Mode Map

Enter:
VOLUME DOWN button + RECALL key
(on the front) (on the remote)
(for more than 5 seconds in power on condition)



```
C-COR/GAM/W-BAL
PUSH RECALL(VCR)
     WORK MODE
```

< Work Mode >

VCR key, RECALL key
(on the remote)
Then, TV key to TV mode

RECALL key
(on the remote)

```
   FACTORY ADJUST    1/1
M:1.020  I:10
 VIDEO ADJ
 SOUND
 FAN
 OTHER
 PARTIAL
 DT BOARD

 DEFAULT SET
 F:11 00 00 00
```

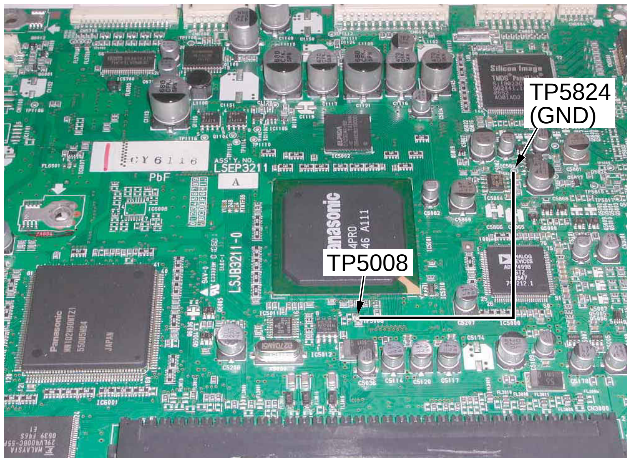
< Factory Adjust Mode >
(Main menu)

OK key
(on the remote)

```
PEAKS          ROM
DT BOARD       WITHOUT
DT FACTORY     CAT
```

Exit:
VOLUME DOWN button + RECALL key
(on the front) (on the remote)
(for more than 5 seconds in Work Mode)
Alternatively, Power OFF

6. To reduce the jitter noise on the XGA Color PC Monitor in this Position, perform either a) or b).
   a) Enter Work Mode.
      Press DVD key to go to DVD mode, then STOP key on the remote.
   b) Or, solder a jumper between TP5008 and TP5824 (GND) on the Main P.C.B.



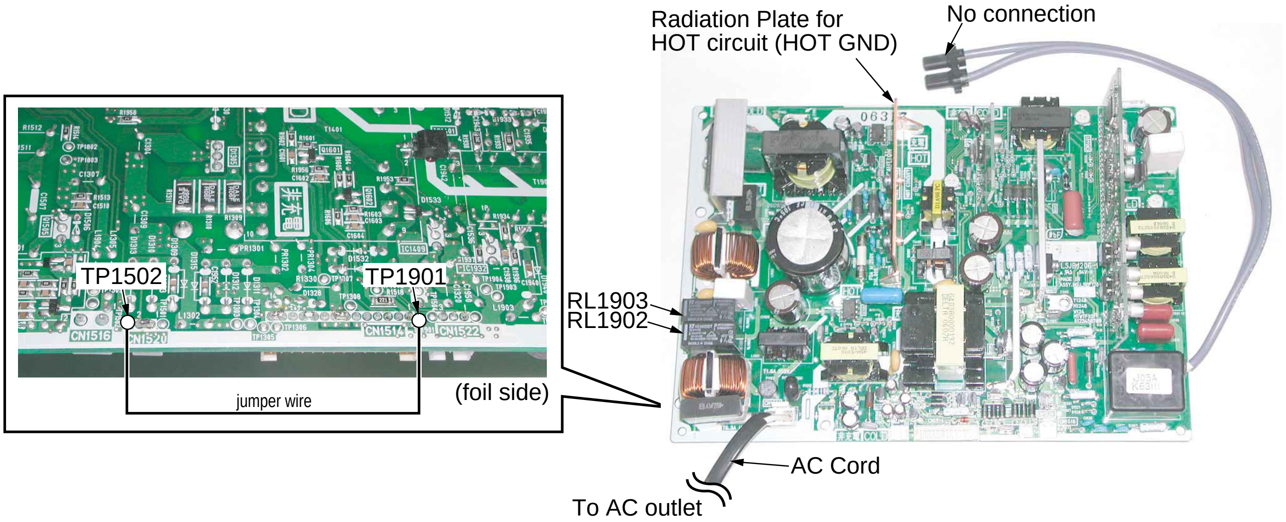
Main P.C.B. (Component Side)

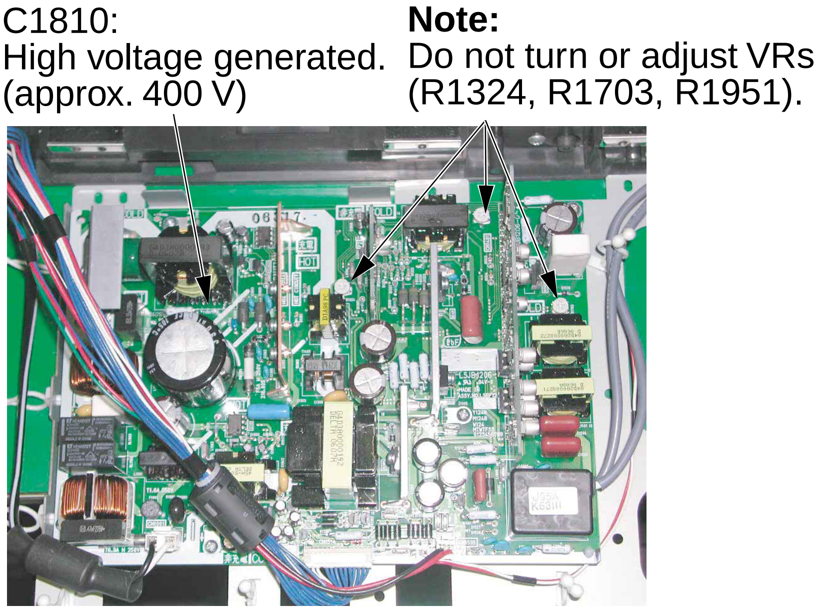
Fig. S1-2

POWER P.C.B. CHECK

It is possible to check the Power P.C.B. only with no load.

Power P.C.B. Service Position


Radiation Plate for
HOT circuit (HOT GND)
No connection
TP1502
TP1901
jumper wire
(foil side)
RL1903
RL1902
AC Cord
To AC outlet


C1810:
High voltage generated.
(approx. 400 V)
Note:
Do not turn or adjust VRs
(R1324, R1703, R1951).

Note: For reference, this illustration shows Power P.C.B./Power Mount Metal opened.

Fig. S1-3

Refer to "CHECKING THE POWER P.C.B." in "Troubleshooting Hints for Component Level Repair."

Note:
To turn on, solder a jumper between TP1502 (ATSC ON (H)) and TP1901 (STBY+7V).

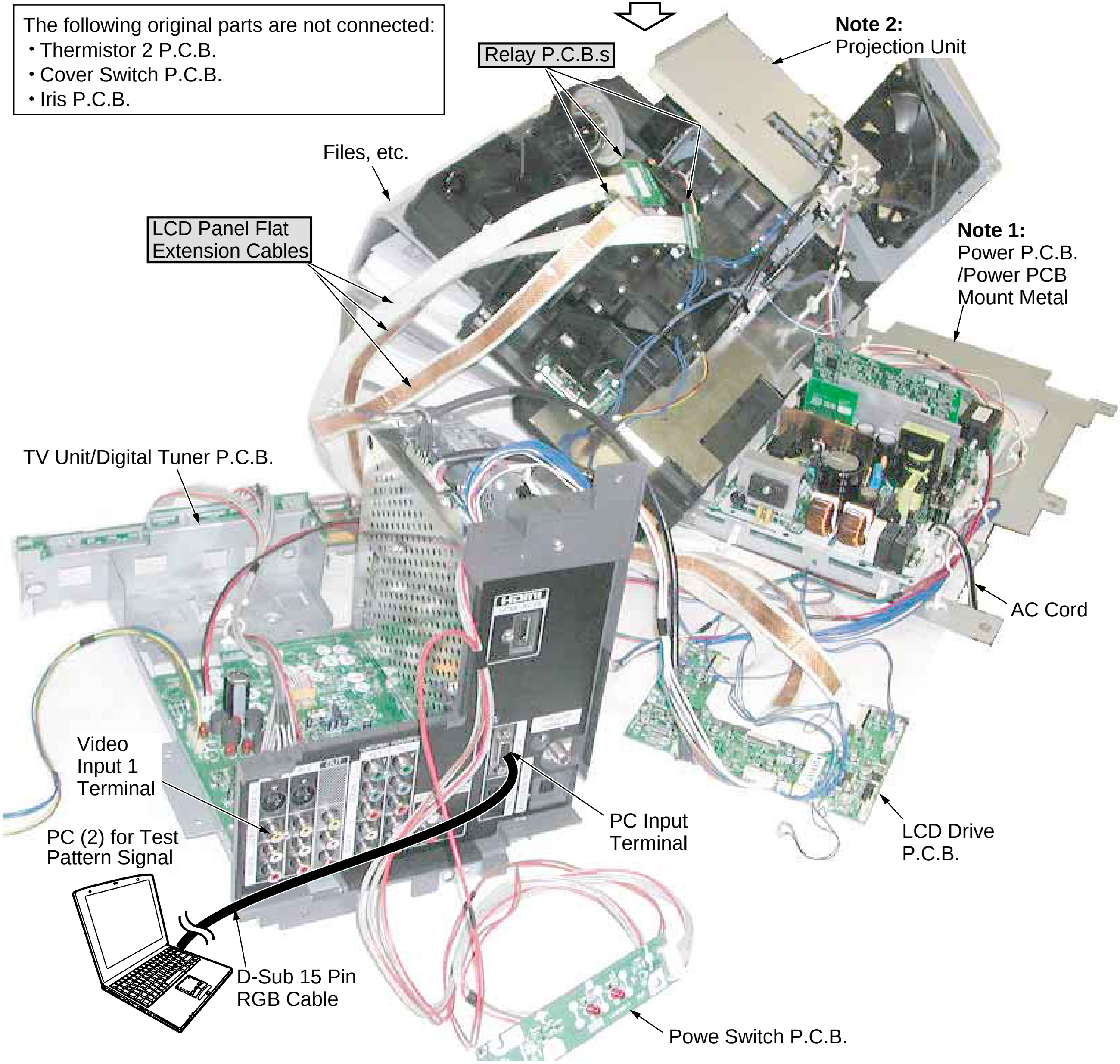
SERVICE POSITION (2)
LCD DRIVE P.C.B. CHECK, FULL MIRROR ADJUSTMENT & POLARIZER ADJUSTMENT OF PROJECTION UNIT

It is possible to adjust the Full Mirror and Polarizer of Projection Unit.

The following service tools are required:	The following equipment is required:
· LCD Panel Flat Extension Cable X3 · Relay P.C.B. X3 · Fan1,3 Extension Cable (LSUA0039) X2 · Fan2 Extension Cable (LSUA0040) · Power Extension Cable (LSUA0038) · Thermistor 2 Defeat Cable (LSUA0013) · Cover Switch Defeat Cable (LSUA0041)	· Screen · PC (2) for Test Pattern Signal · D-Sub 15 Pin RGB Cable (for connecting the PC Input Terminal)

For more details, See Fig. S3-2 ~ S3-4.

The following original parts are not connected:
- Thermistor 2 P.C.B.
- Cover Switch P.C.B.
- Iris P.C.B.



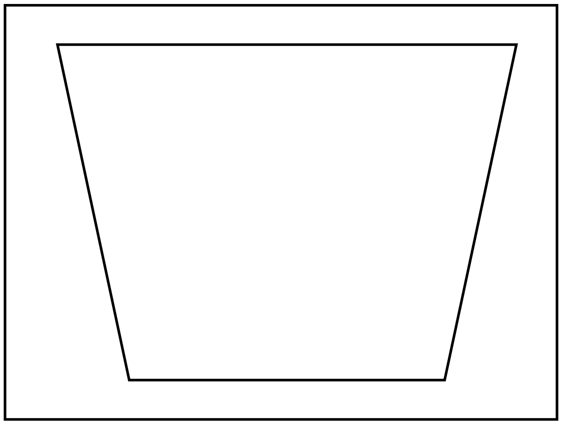
Relay P.C.B.s
Note 2:
Projection Unit
Files, etc.
LCD Panel Flat Extension Cables
Note 1:
Power P.C.B. /Power PCB Mount Metal
TV Unit/Digital Tuner P.C.B.
AC Cord
Video Input 1 Terminal
PC (2) for Test Pattern Signal
PC Input Terminal
LCD Drive P.C.B.
D-Sub 15 Pin RGB Cable
Powe Switch P.C.B.

Fig. S3-1

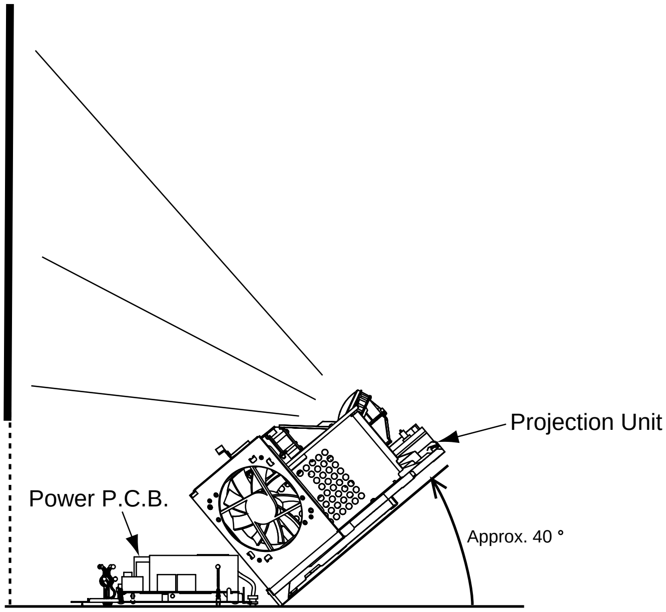
Note for Service Position (3):

1. To improve safety and serviceability, open the Power P.C.B./Power PCB Mount Metal by removing the 6 Screws.
2. Project the picture onto the white screen so that the picture is within the limits of the Screen as shown.

Mechanical Adjustment Setting



<White Screen>


Projection Unit
Power P.C.B.
Approx. 40 °

<Side View>

Detailed View for Service Position (2)

Note:
Take care not to apply excessive pressure to the LCD Panel Flexible Cables when servicing.

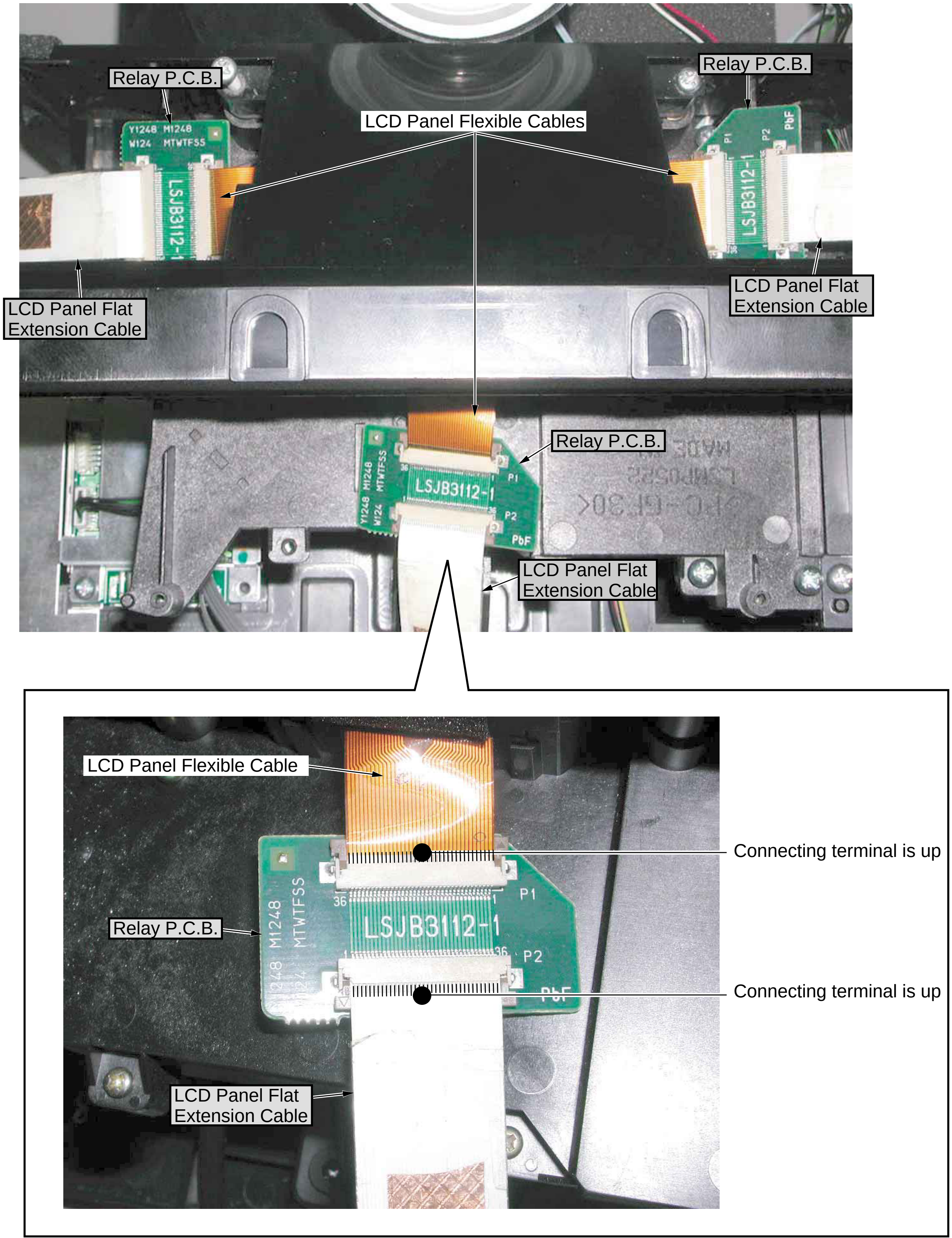

Relay P.C.B.
Relay P.C.B.
LCD Panel Flexible Cables
LCD Panel Flat Extension Cable
LCD Panel Flat Extension Cable
Relay P.C.B.
LCD Panel Flat Extension Cable
LCD Panel Flexible Cable
Connecting terminal is up
Relay P.C.B.
LSJB3112-1
P1
P2
PbF
Connecting terminal is up
LCD Panel Flat Extension Cable

Fig. S3-2

Detailed View for Service Position (2)

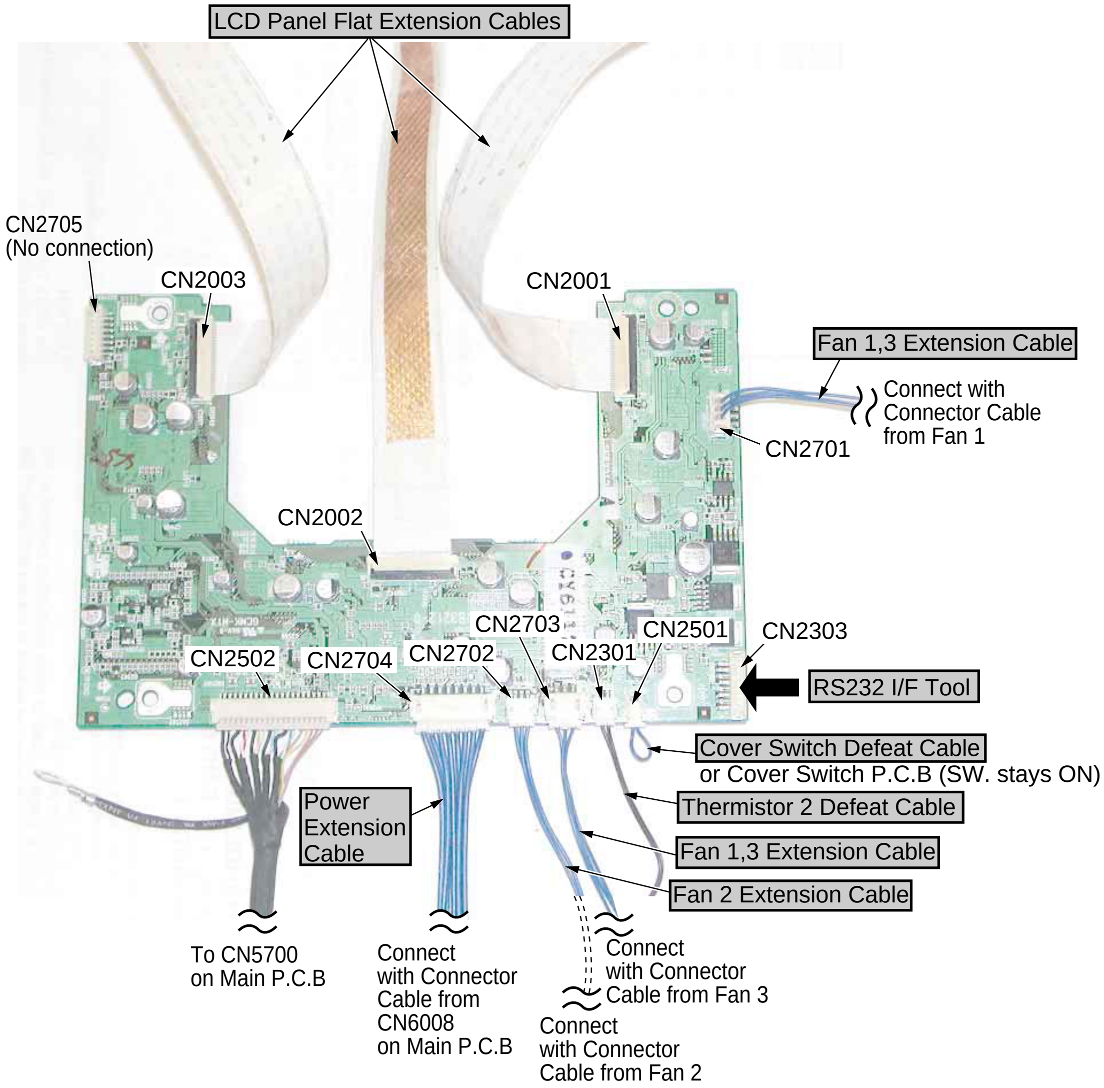

LCD Panel Flat Extension Cables
CN2705
(No connection)
CN2003
CN2001
Fan 1,3 Extension Cable
Connect with
Connector Cable
from Fan 1
CN2701
CN2002
CN2703
CN2501
CN2303
CN2502
CN2704
CN2702
CN2301
RS232 I/F Tool
Cover Switch Defeat Cable
or Cover Switch P.C.B (SW. stays ON)
Power
Extension
Cable
Thermistor 2 Defeat Cable
Fan 1,3 Extension Cable
Fan 2 Extension Cable
To CN5700
on Main P.C.B
Connect
with Connector
Cable from
CN6008
on Main P.C.B
Connect
with Connector
Cable from Fan 3
Connect
with Connector
Cable from Fan 2

Fig. S3-3

Note:
Because of disconnecting Connector CN2705, Iris function does not work in this position.

Detailed View for Service Position (2

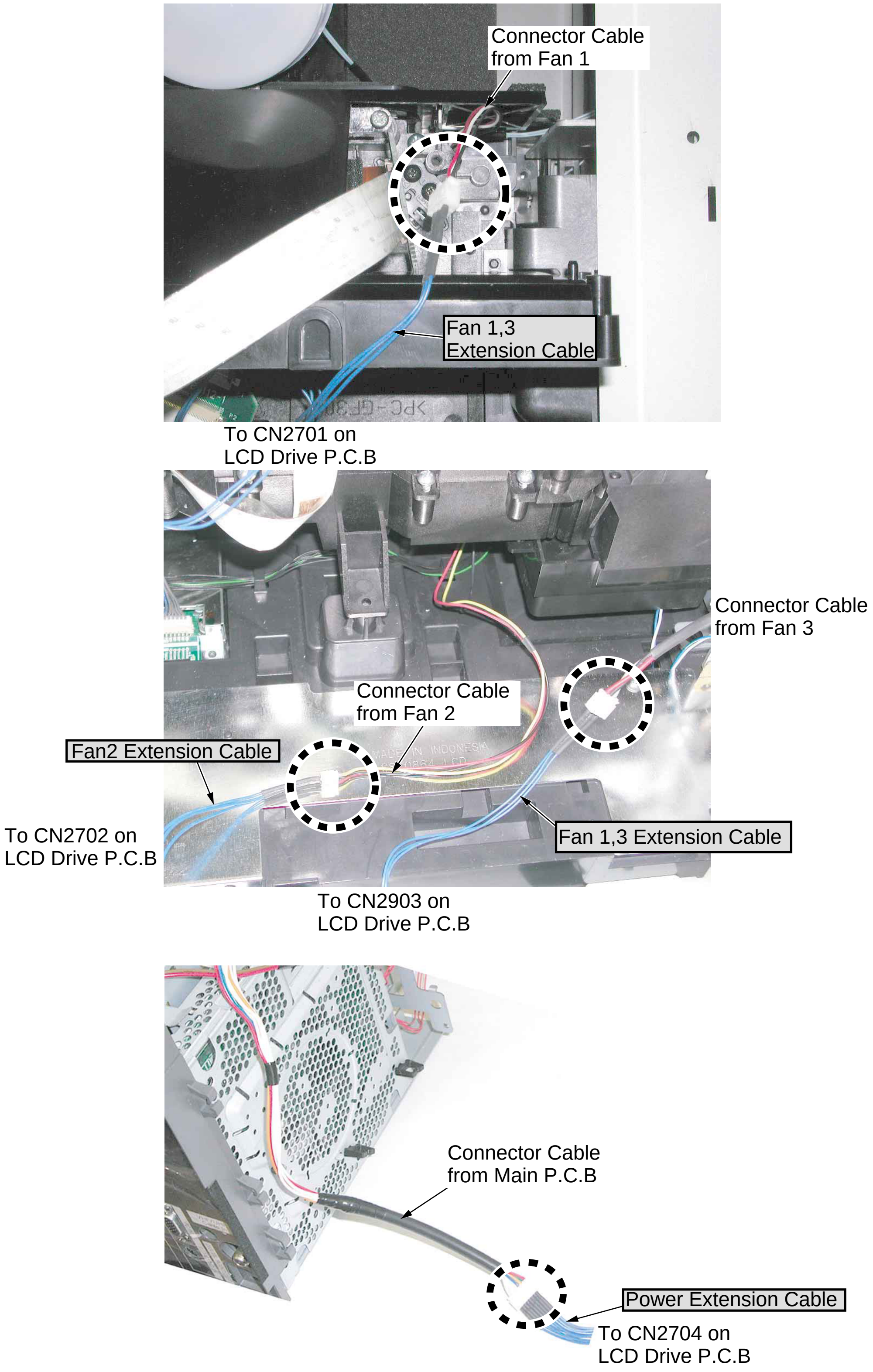

Connector Cable
from Fan 1
Fan 1,3
Extension Cable
To CN2701 on
LCD Drive P.C.B
Connector Cable
from Fan 3
Connector Cable
from Fan 2
Fan2 Extension Cable
To CN2702 on
LCD Drive P.C.B
Fan 1,3 Extension Cable
To CN2903 on
LCD Drive P.C.B
Connector Cable
from Main P.C.B
Power Extension Cable
To CN2704 on
LCD Drive P.C.B

Fig. S3-4

8.3. Replacement Procedures for CSP (Chip Size Package) IC

IC Location

Make sure to install IC in the correct position on the P.C.B. as shown.

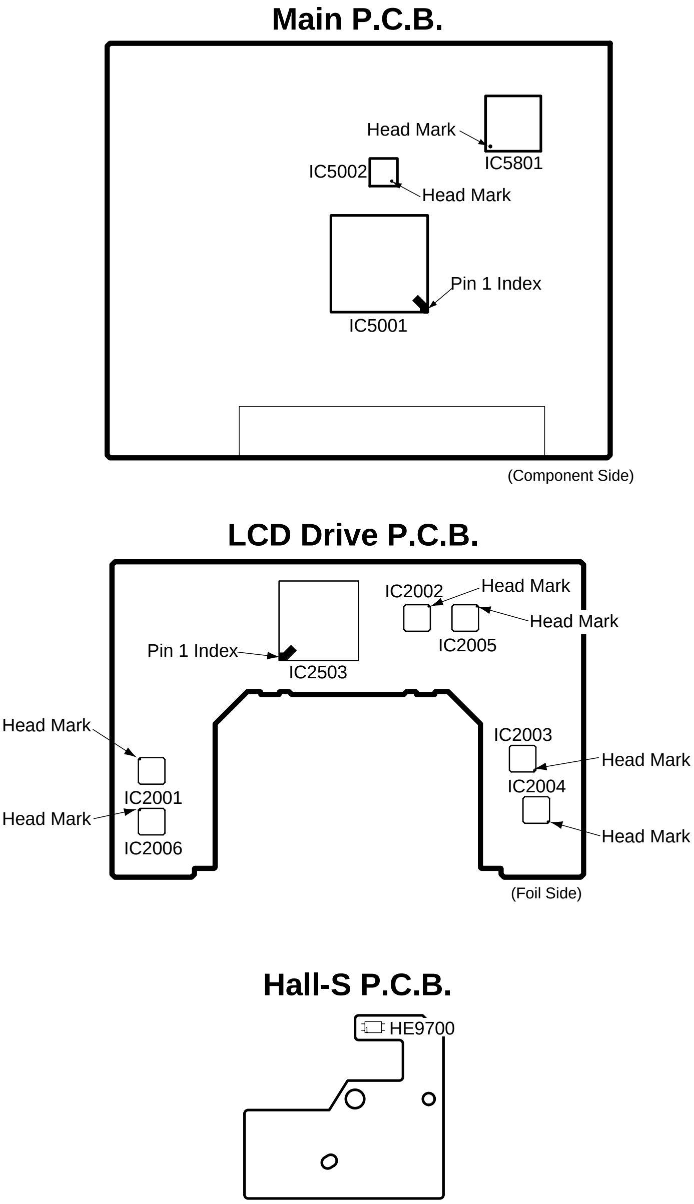
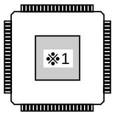

Main P.C.B.
Head Mark
IC5801
IC5002
Head Mark
Pin 1 Index
IC5001
(Component Side)
LCD Drive P.C.B.
IC2002
Head Mark
Head Mark
IC2005
Pin 1 Index
IC2503
Head Mark
IC2003
Head Mark
IC2001
IC2004
Head Mark
Head Mark
IC2006
(Foil Side)
Hall-S P.C.B.
HE9700

Fig. 10-1

Temperature Profile for Heat Resistance of CSP IC

- IC2001~IC2006 on the LCD Drive P.C.B.

The area as indicated with ※1 is connected with the LCD Drive C.B.A. with solder for conductive heat sink.



<Bottom View>

(IC Removal hint)
• Use the Blower (heat up) from the top to remove.

(IC Installation hint)
• Solder the ※1 area of IC.
If can not solder, make the solder remained on PC board where ※1 area is connected with as flat as possible.

TEMPERATURE PROFILE FOR HEAT RESISTANCEOF THIS IC

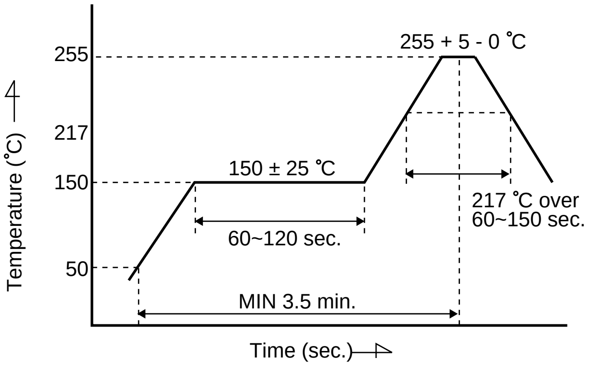
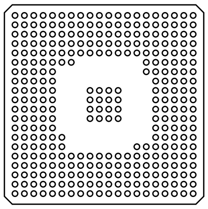


Fig. 10-2

- IC2503 (CSP IC) on the LCD Drive P.C.B.



<Bottom View of IC2503>

TEMPERATURE PROFILE FOR HEAT RESISTANCEOF THIS IC

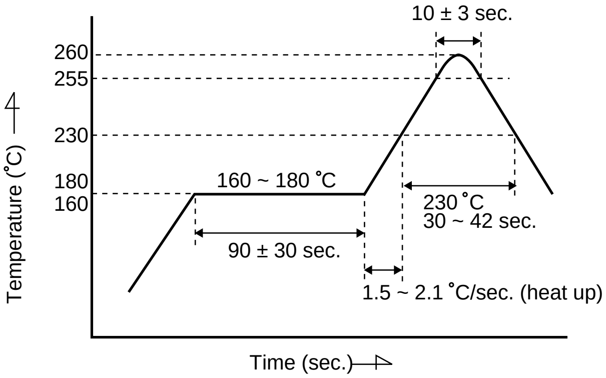
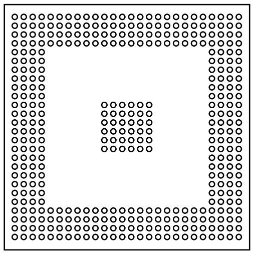


Fig. 10-3

- IC5001 (CSP IC) on the Main P.C.B.



<Bottom View>

TEMPERATURE PROFILE FOR HEAT RESISTANCE OF THIS IC

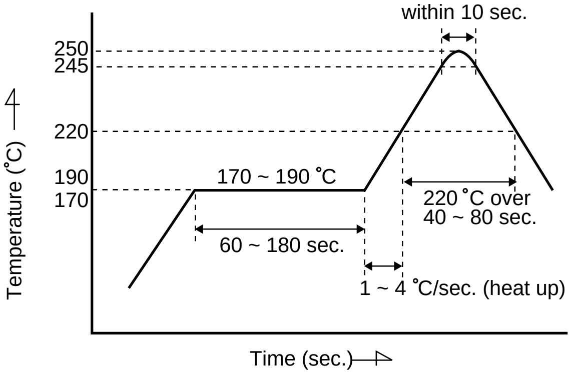
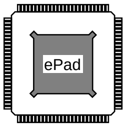


Fig. 10-4

- IC5801 on the Main P.C.B.

The ePad of this IC, located on the bottom of the IC, is connected on the Main C.B.A. with solder.



<Bottom View>

(IC Removal hint)
- Use the Blower (heat up) from the top to remove.

Note:
This IC (HDMI IC) which was removed must be disposed of.

(IC Installation hint)
- It is necessary to connect the ePad erea with the solder.

TEMPERATURE PROFILE FOR HEAT RESISTANCEOF THIS IC

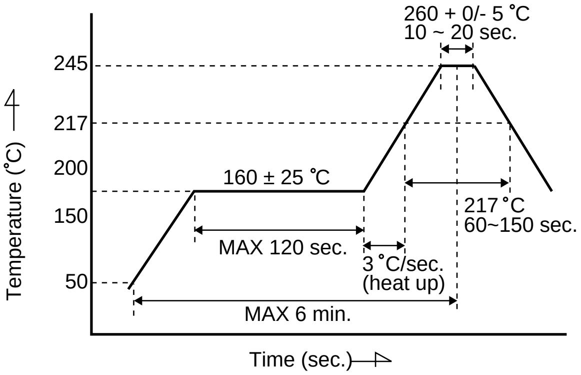
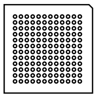


Fig. 10-5

- IC5002 on the Main P.C.B.



<Bottom View>

TEMPERATURE PROFILE FOR HEAT RESISTANCE OF THIS IC

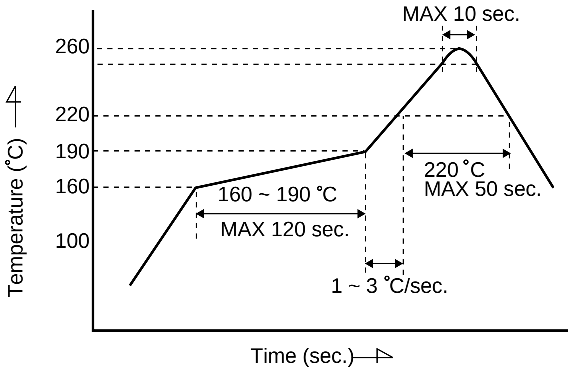
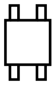


Fig. 10-6

- HE9700 (Hall IC) on the Hall-S P.C.B.



TEMPERATURE PROFILE FOR HEAT RESISTANCEOF THIS IC

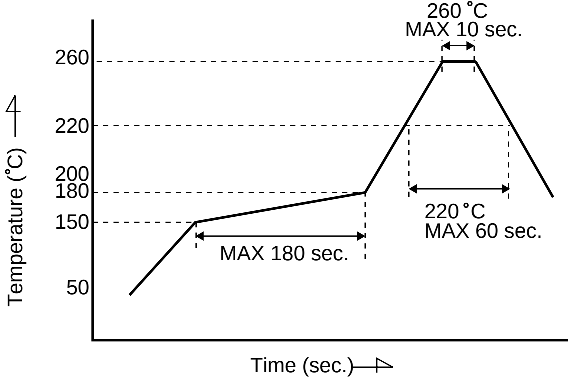


Fig. 10-7

9 Disassembly and Assembly Instructions

9.1. Cabinet Section

DISASSEMBLY METHOD OF CABINET SECTION

Cabinet section contains following removal procedures:

REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET

REMOVAL OF THE PROJECTION UNIT

REMOVAL OF THE BASE BODY UNIT

REMOVAL OF THE POWER P.C.B. FROM THE CABINET

REMOVAL OF THE FRONT JACK/OPERATION P.C.B., THE SD CARD P.C.B., THE MAIN P.C.B., THE BASE P.C.B. FROM THE TV UNIT

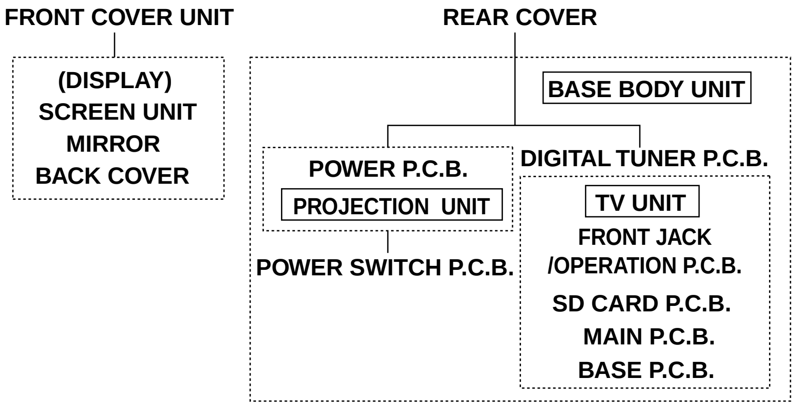
REMOVAL OF THE SCREEN UNIT FROM THE DISPLAY

REMOVAL OF THE MIRROR FROM THE BACK COVER

REMOVAL OF THE POWER SWITCH P.C.B. FROM THE CABINET

DISASSEMBLY FLOWCHART

This flow chart indicates the disassembly steps of the cabinet parts and the P.C.Boards in order to gain access to item (s) to be serviced. When reassembling, perform the step (s) in the reverse order. Bend, route and dress the wires as they were originally.


FRONT COVER UNIT
(DISPLAY)
SCREEN UNIT
MIRROR
BACK COVER
REAR COVER
BASE BODY UNIT
POWER P.C.B.
PROJECTION UNIT
POWER SWITCH P.C.B.
DIGITAL TUNER P.C.B.
TV UNIT
FRONT JACK
/OPERATION P.C.B.
SD CARD P.C.B.
MAIN P.C.B.
BASE P.C.B.

Note :

a. Place a cloth or some other soft material under the P.C. Boards or Unit to prevent damage.
b. When reinstalling, ensure that the connectors are connected firmly and electrical components have not been damaged.
c. Do not supply power to the unit during disassembly and reassembly.

REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET

1. Remove the Rear Cover Unit by removing the 13 Screws (401) then pinching the 3 latch tabs.

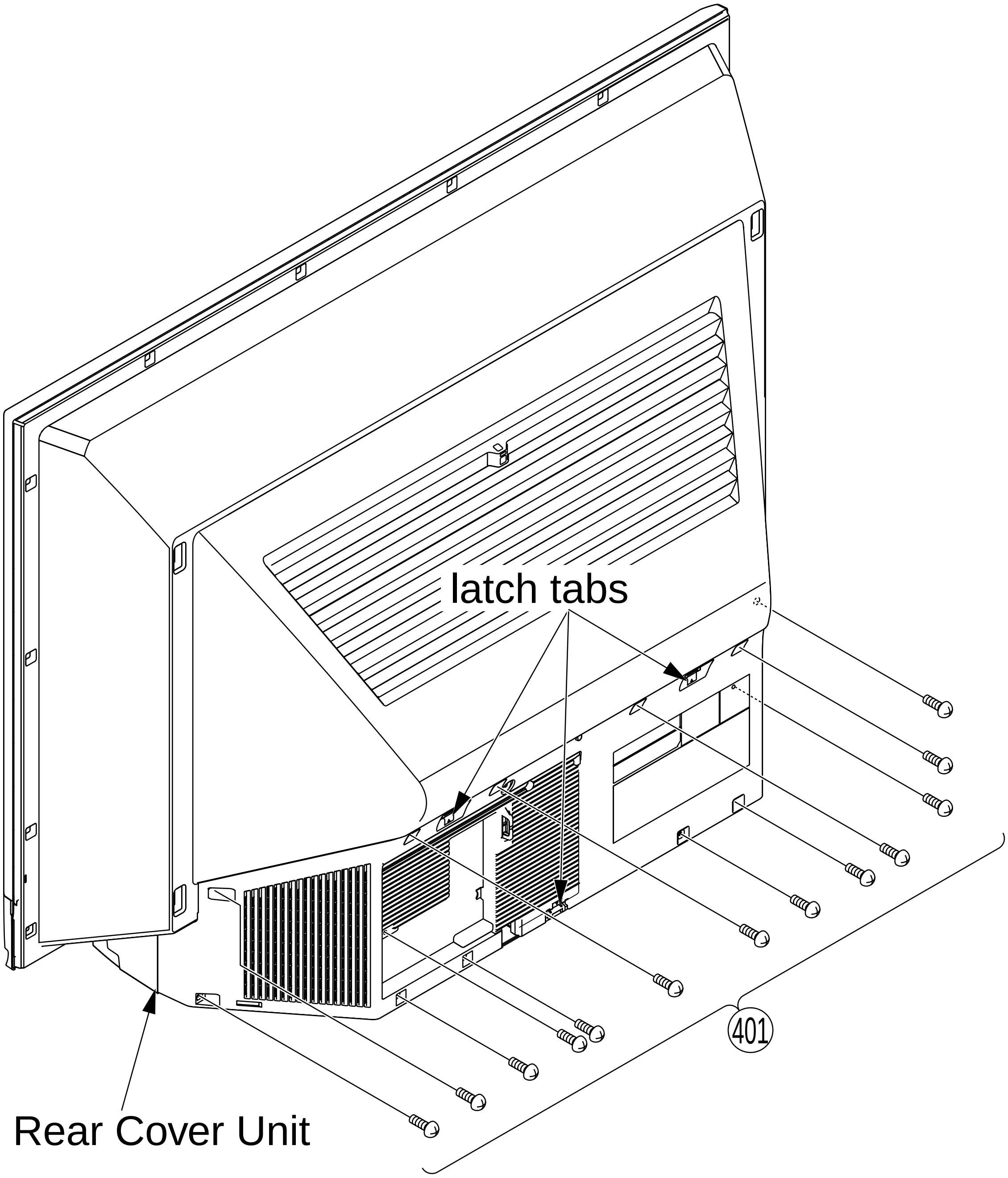

latch tabs
401
Rear Cover Unit

Fig. D1-1

2. Remove the Connecting Plate R by removing the 2 Screws (401, 402).
3. 1) Remove the 2 Screws (402) on the Connecting Plate F, and remove the Screw (401) on the left side of the TV Unit.
   2) Disconnect Connectors CN4501, CN6000, CN6001, CN6002, CN6008 and the 2 Speaker Connectors and release from the clampers.
   3) To access the GND Wire of the LVDS Cable, slide the TV Unit with the Digital Tuner P.C.B. along the Guide Tabs.
   4) Remove the Screw (402) on GND Wire of LVDS Cable, and disconnect the LVDS Cable from Connector CN5700.
   Note: refer to next page.
   5) Remove the TV Unit with the Digital Tuner P.C.B.

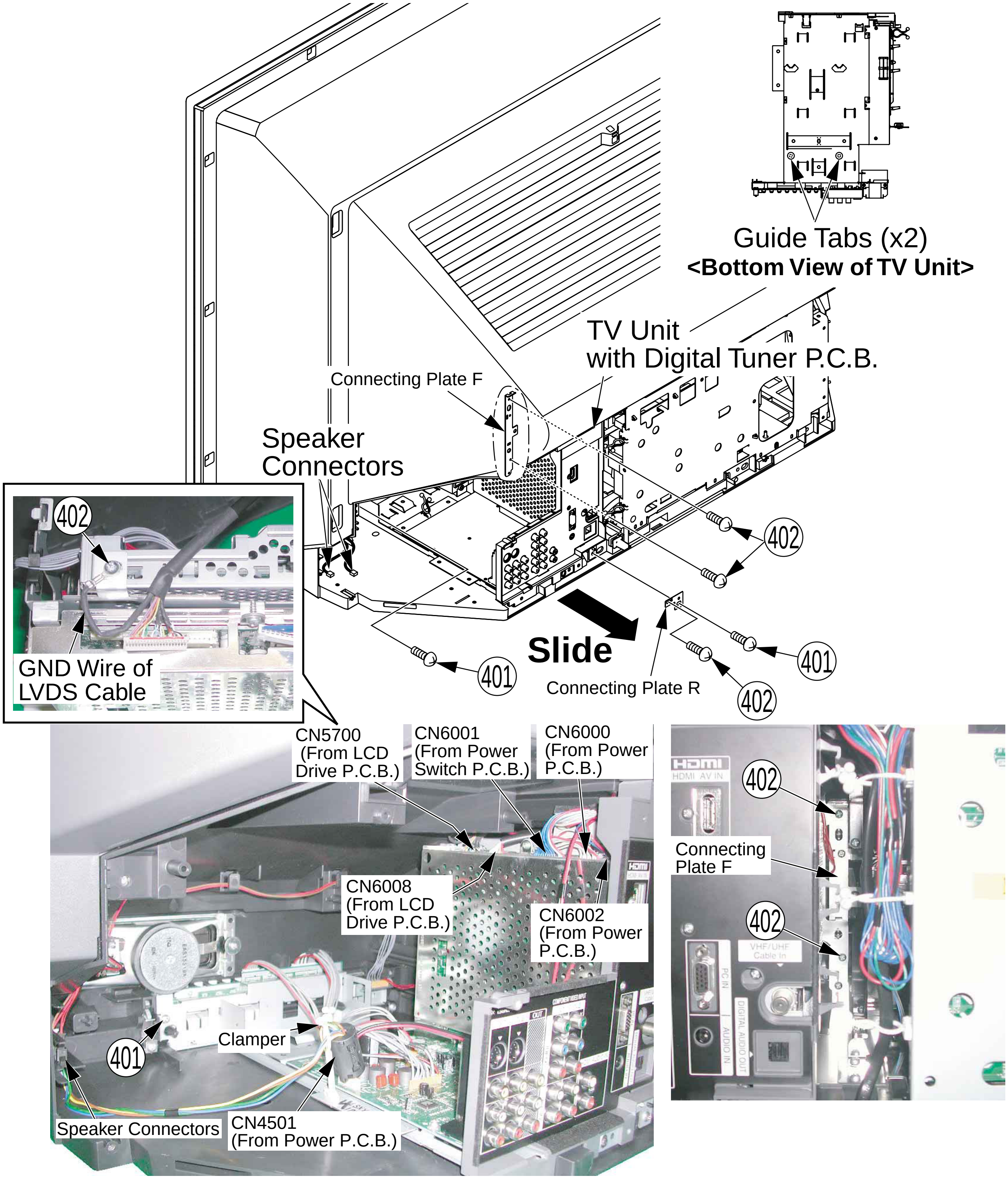
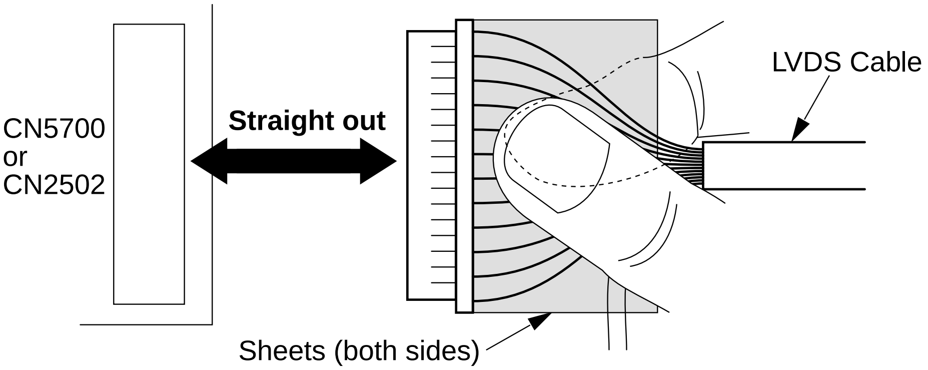

Guide Tabs (x2)
<Bottom View of TV Unit>
TV Unit
with Digital Tuner P.C.B.
Connecting Plate F
Speaker
Connectors
402
GND Wire of
LVDS Cable
402
402
Slide
401
Connecting Plate R
401
402
CN5700
(From LCD
Drive P.C.B.)
CN6001
(From Power
Switch P.C.B.)
CN6000
(From Power
P.C.B.)
CN6008
(From LCD
Drive P.C.B.)
CN6002
(From Power
P.C.B.)
Clamper
401
Speaker Connectors
CN4501
(From Power P.C.B.)
402
Connecting
Plate F
402

Fig. D1-2

Note:

Grasping the center of both sides of the sheet or cable with your fingers, slowly and steadily pull the LVDS Cable straight out from the connector. Do not joggle the LVDS cable while disconnecting. Reconnecting is done in the same manner.


CN5700
or
CN2502
Straight out
LVDS Cable
Sheets (both sides)

For early models:
LVDS Cables without sheets
are done in the same manner.

4. 1) Disconnect Connector DT10.
   2) Remove the Digital Tuner P.C.B. by removing the 6 Screws (402, 480). (BtoB Connector DT12 is disconnected.)
   Note:
   If the Digital Tuner P.C.B. is difficult to remove, remove the Rear Jack Holder by removing the 6 (or 7: **PT-52/56LCX16, PT-52/61LCX66-K, PT-56LCX15-K**) Screws (402, 452) and releasing the Locking Tab.

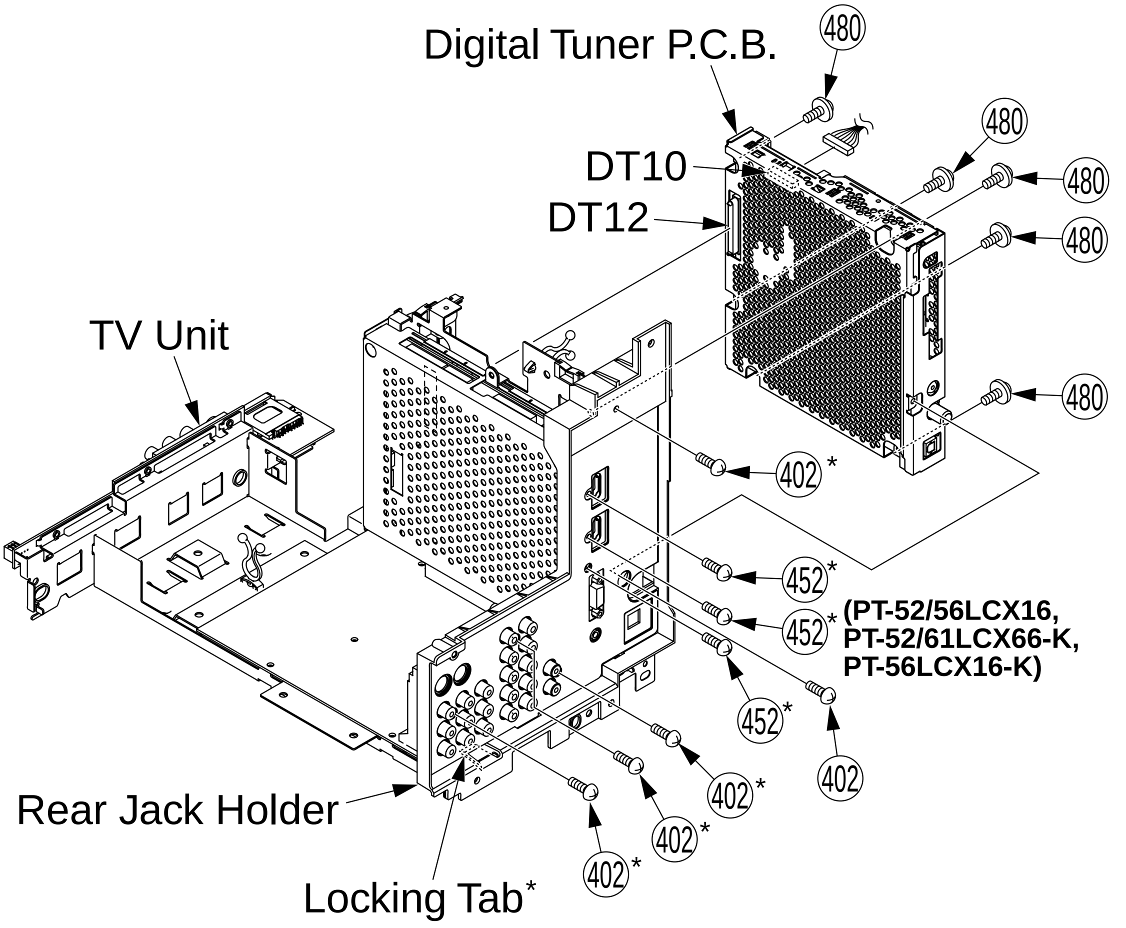

Digital Tuner P.C.B.
480
DT10
DT12
480
480
480
480
TV Unit
402*
452*
452*
(PT-52/56LCX16,
PT-52/61LCX66-K,
PT-56LCX16-K)
452*
402
402*
402*
402*
Rear Jack Holder
Locking Tab*

Fig. D1-3

REMOVAL OF THE PROJECTION UNIT

1. Remove the TV Unit with the Digital Tuner P.C.B. Refer to Steps 1 ~ 2 in "REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET."
2. 1) Remove the 2 Screws (402) on the Connecting Plate F.
   2) Remove the 4 Screws (401) on the Projection Unit.
   3) Slide the Projection Unit along the Groove.

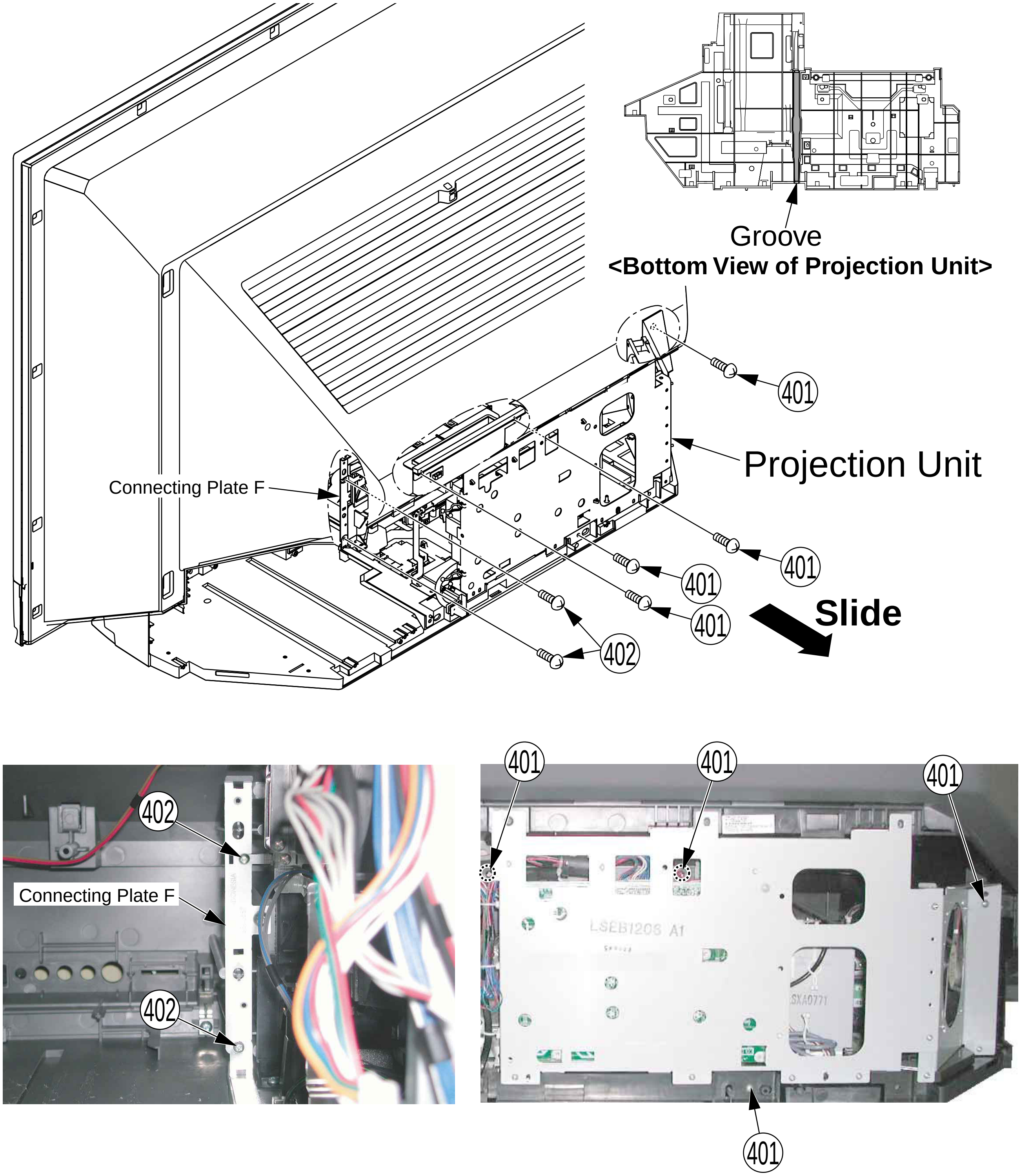

Groove
<Bottom View of Projection Unit>
401
Projection Unit
Connecting Plate F
401
401
401
Slide
402
401
401
401
402
Connecting Plate F
402
401

Fig. D2-1

3. 1) Remove the Top Duct 3 Unit by removing the 4 Screws (421).
   CAUTION:
   When removing the Screws (421) on the Top Duct 3 Unit, plastic dust may be produced. Therefore, confirm that there is no dust on the Top Duct 3 Unit. If there is dust, clean the Top Duct 3 Unit with a brush, etc. Otherwise, dust may adhere to the inside of the screen.
   2) Remove the Lamp Unit by turning the Knob.

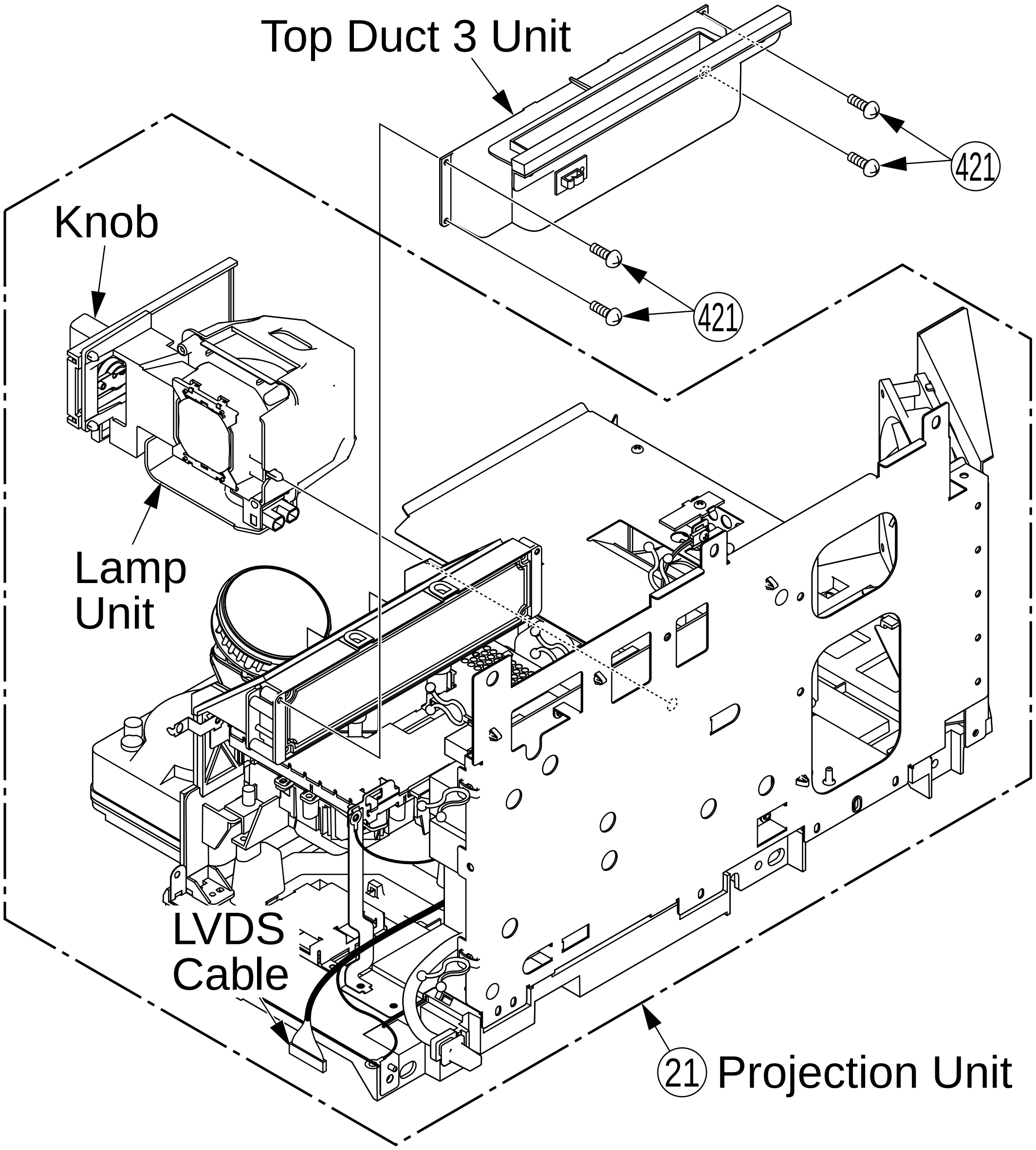


Fig. D2-2

Replacement Note of Projection Unit:

1. After replacing the Projection Unit, be sure to perform "ADJUSTMENT of Projection Unit." Refer to "WHEN INSTALLING THE PROJECTION UNIT OR THE BASE BODY UNIT INTO THE UNIT AT THE USER'S LOCATION:."
2. These parts will be necessary when replacing. Set aside, keep, and re-use.
   - Top Duct 3 Unit
   - Lamp Unit

REMOVAL OF THE BASE BODY UNIT

1. Remove the Rear Cover Unit. Refer to Step 1 in "REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET."
2. 1) Remove the Front Cover Unit from the latches.
   2) Remove the 5 Screws (454) from front side, and remove the Display.

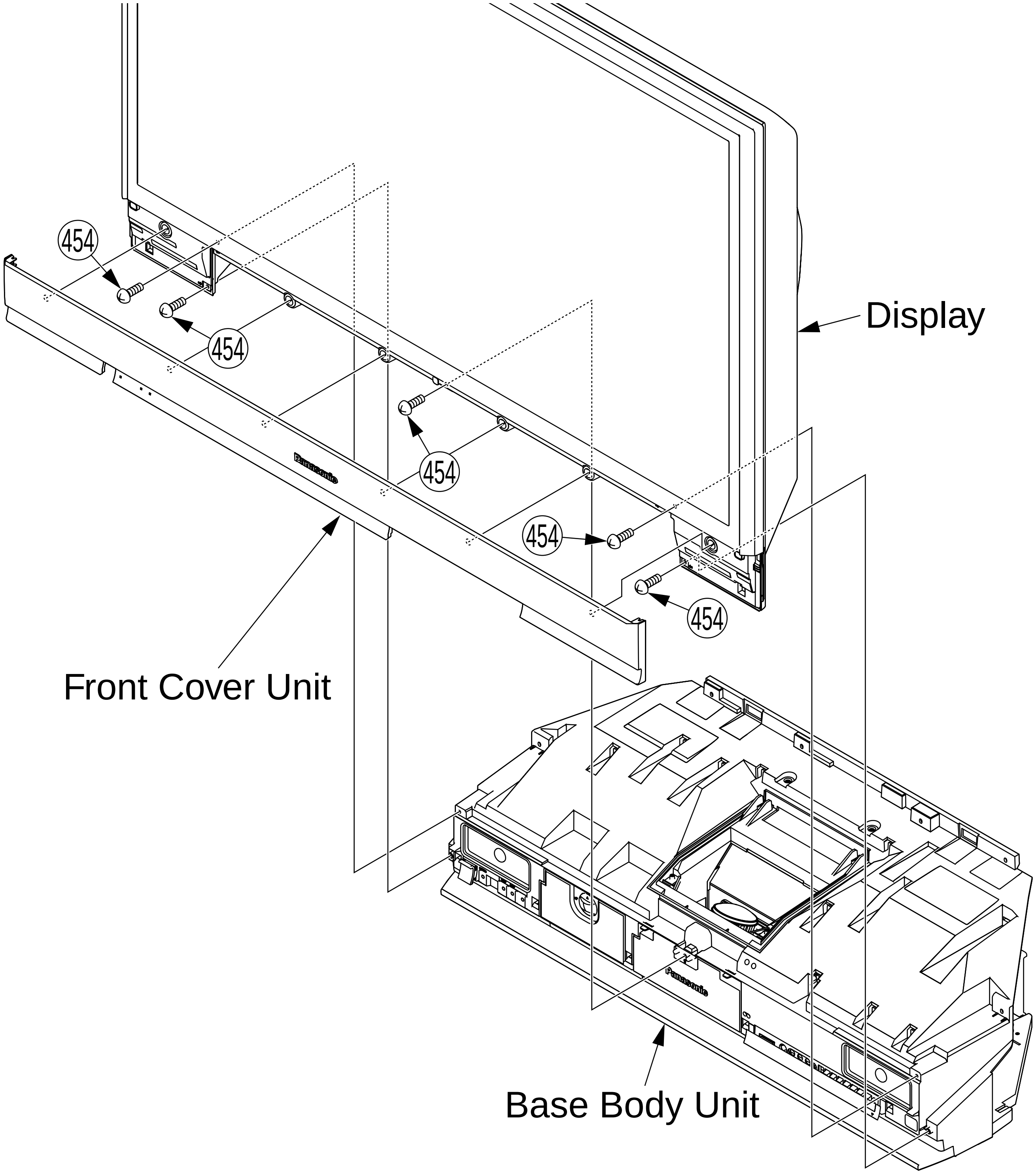
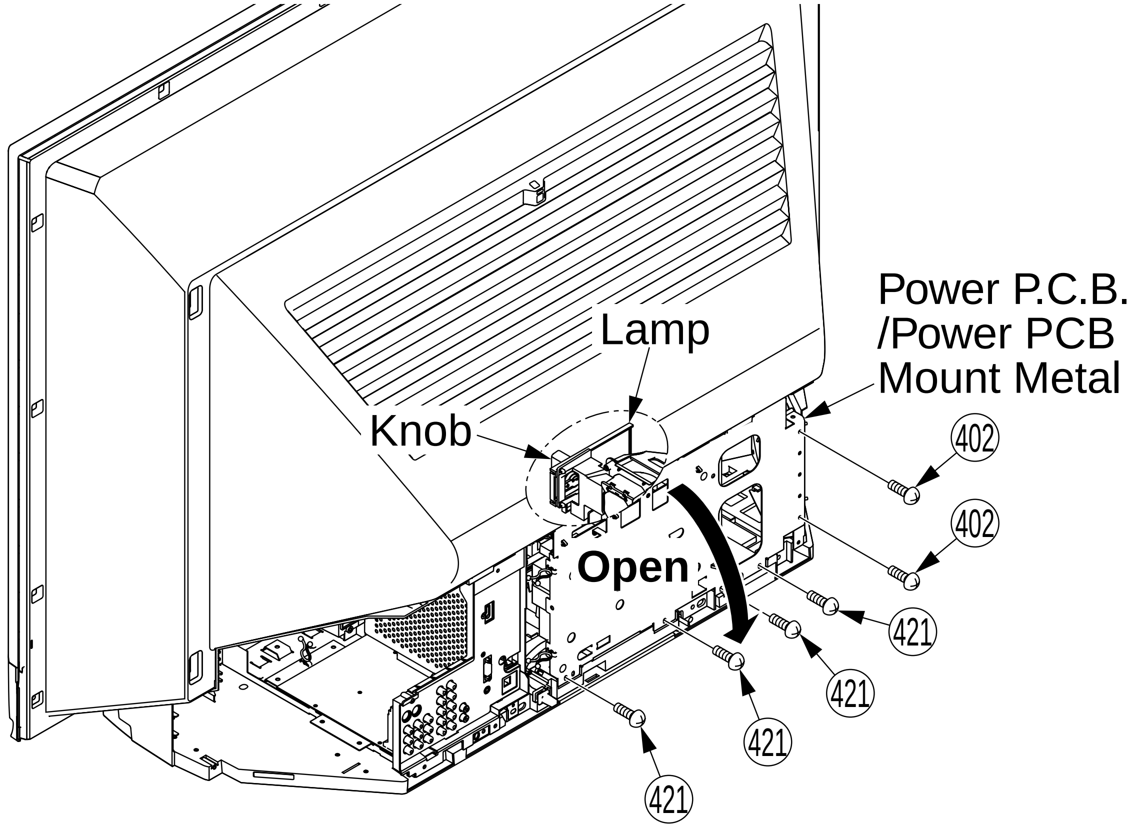

454
454
454
454
454
Display
Front Cover Unit
Base Body Unit

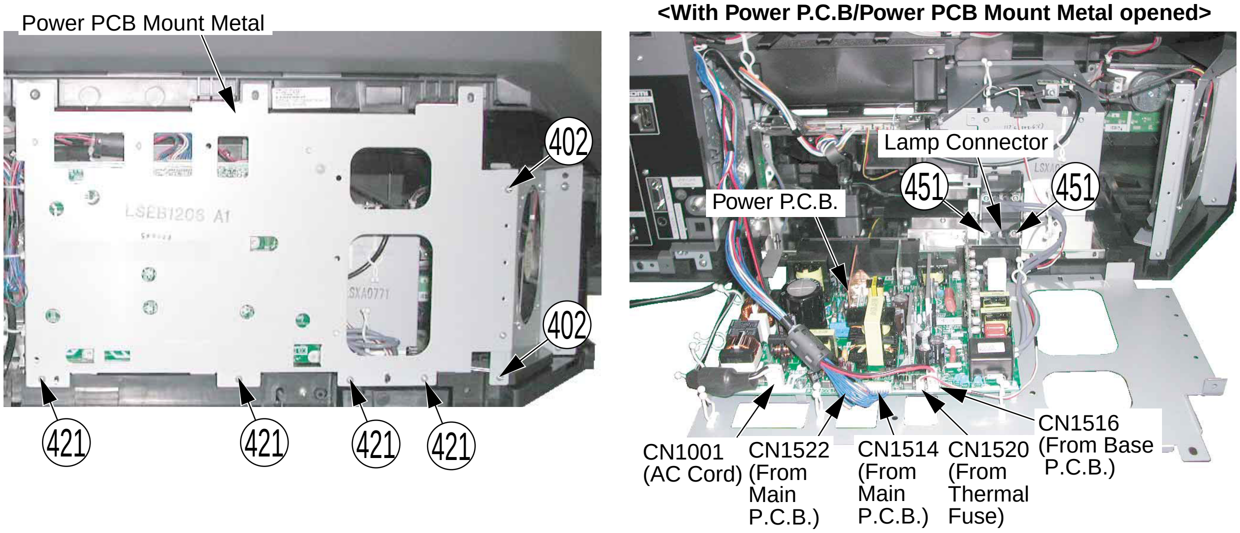
Fig. D3

Replacement Note:
After replacing the Base Body Unit, be sure to perform "ADJUSTMENT of Projection Unit." Refer to "WHEN INSTALLING THE PROJECTION UNIT OR THE BASE BODY UNIT INTO THE UNIT AT THE USER'S LOCATION:."

REMOVAL OF THE POWER P.C.B. FROM THE CABINET

1. Remove the Rear Cover Unit. Refer to Step 1 in "REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET."
2. 1) Open the Power P.C.B/Power PCB Mount Metal by removing the 6 Screws (402, 421).
   2) Disconnect Connectors CN1522, CN1514, CN1516, CN1520 (Thermal Fuse) and release from the clampers.
   3) Remove the Lamp Unit by turning the Knob from the front.
3. 1) Disconnect the Lamp Connector by removing the 2 Screws (451).


Power P.C.B.
/Power PCB
Mount Metal
Lamp
Knob
Open
402
402
421
421
421
421


Power PCB Mount Metal
402
402
421
421
421
421

<With Power P.C.B/Power PCB Mount Metal opened>

Lamp Connector
451
451
Power P.C.B.
CN1001 (AC Cord)
CN1522 (From Main P.C.B.)
CN1514 (From Main P.C.B.)
CN1520 (From Thermal Fuse)
CN1516 (From Base P.C.B.)

Fig. D4-1

Reassembly Note for Lamp:
After installing the Lamp Unit, confirm that the Lamp Unit will not come out by pulling on the Knob.

2) Remove the Power P.C.B. by removing the 5 Screws (479) and release from the spacer.

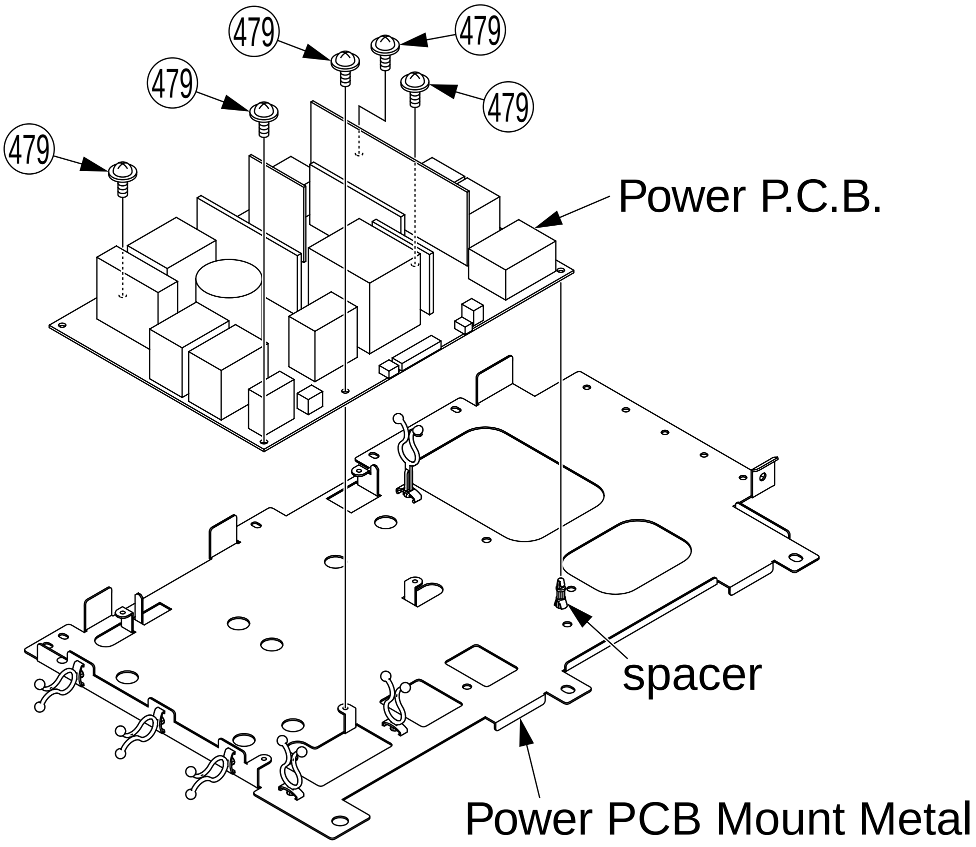
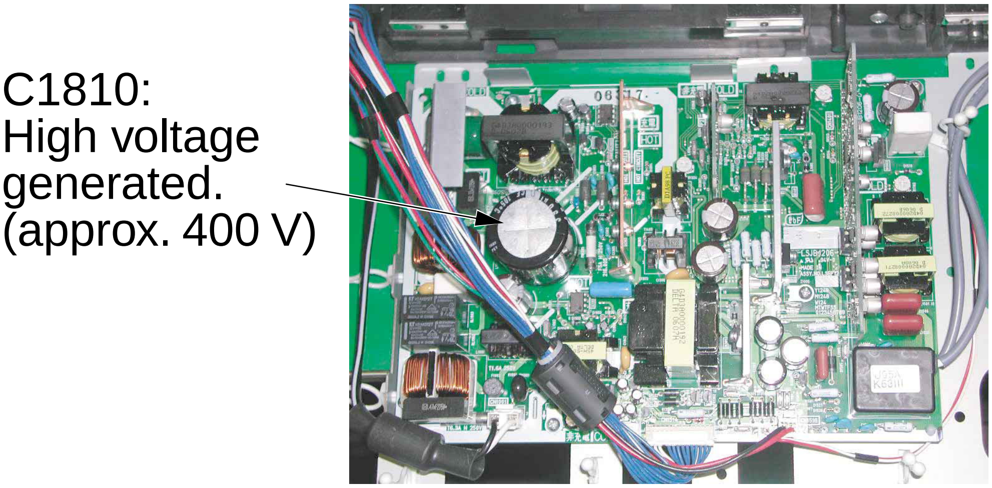

479
479
479
479
479
Power P.C.B.
spacer
Power PCB Mount Metal

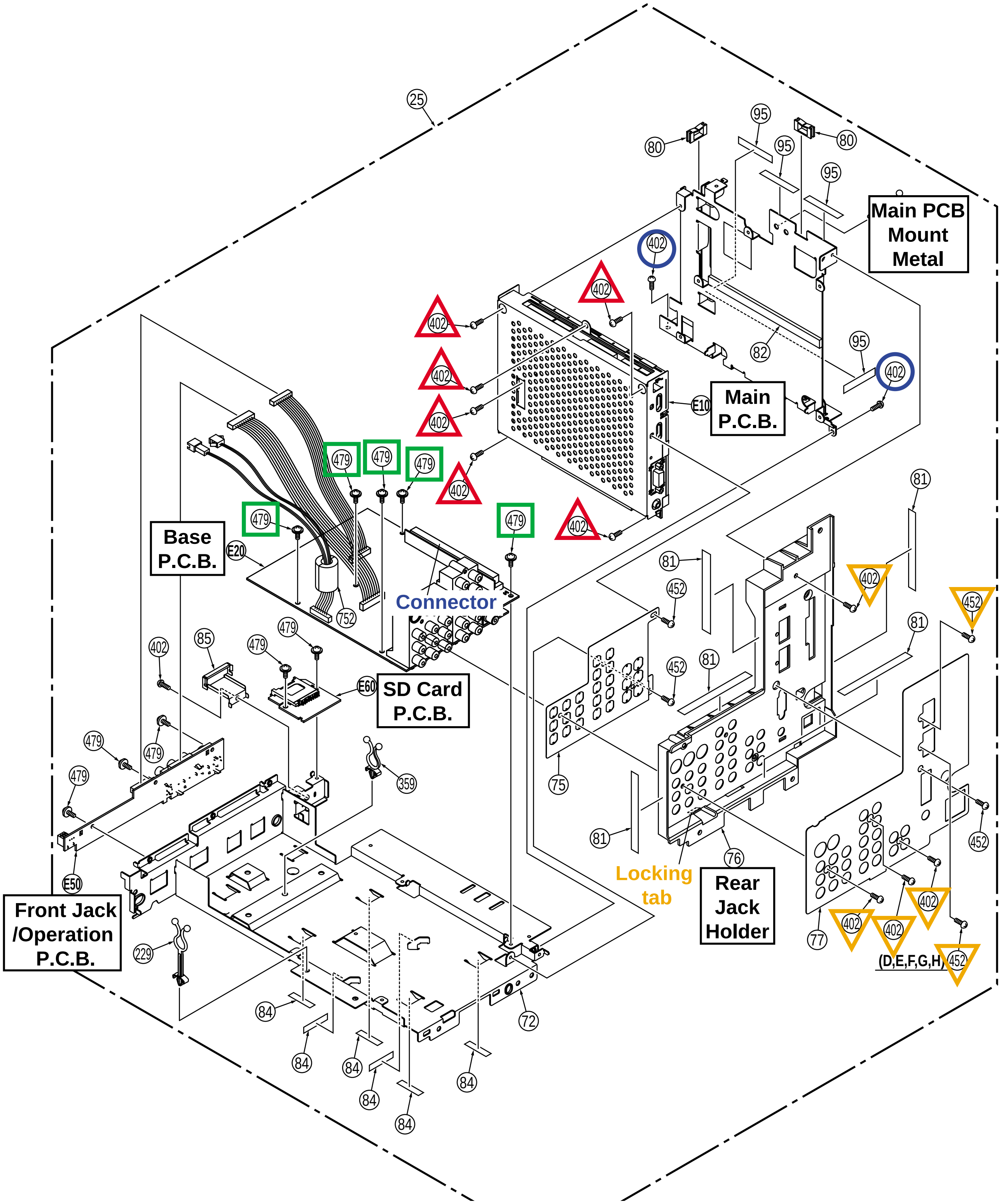
Fig. D4-2

CAUTION:
High voltage exists on the Power P.C.B. While removing Power P.C.B., do not touch any parts on the board. Hold the edge of the board when removing it.


C1810:
High voltage
generated.
(approx. 400 V)

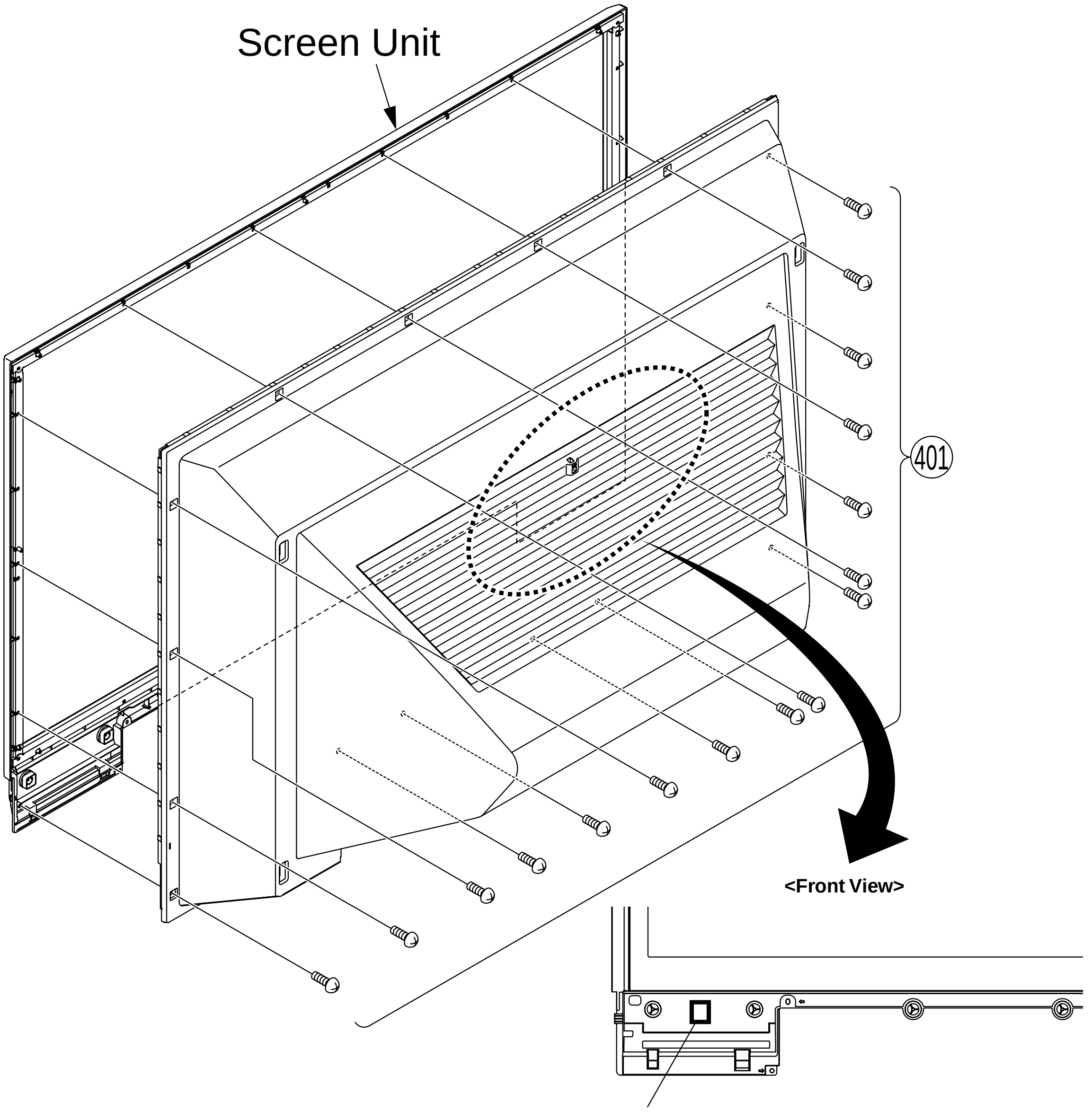
REMOVAL OF THE FRONT JACK/OPERATION P.C.B., THE SD CARD P.C.B., THE MAIN P.C.B., THE BASE P.C.B. FROM THE TV UNIT

1. Remove the TV Unit. Refer to Steps 1 ~ 4 in "REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET."
2. Remove the Rear Jack Holder by removing the screws and releasing Locking tab ("▽" mark).
3. Remove the Main P.C.B. and the Main PCB Mount Metal together by removing the screws ("○" mark) and the connector. Then remove the Main P.C.B. by removing the screws ("△" mark).
4. Remove the Base P.C.B. by removing the screws ("□" mark).


25
95
80
80
95
95
Main PCB Mount Metal
402
402
402
402
402
82
95
402
E10
Main P.C.B.
479
479
479
402
479
479
402
Base P.C.B.
E20
Connector
752
81
81
402
452
452
81
452
81
402
85
479
479
E60
SD Card P.C.B.
479
479
479
359
75
81
76
Locking tab
Rear Jack Holder
452
402
402
402
77
(D,E,F,G,H)
452
E50
Front Jack /Operation P.C.B.
229
84
84
84
84
84
84
72

REMOVAL OF THE SCREEN UNIT FROM THE DISPLAY

1. Remove the Display. Refer to Steps 1 ~ 2 in "REMOVAL OF THE BASE BODY UNIT."
2. Remove the Screen Unit by removing the 16 Screws (401).



See label on the 56 inch Screen Unit.

label / Screen Unit	T by TOPPAN	K by KURARAY
PT-56LCX66	LSYK1871	LSYK1888
PT-56LCX16/-K	LSYK1872	LSYK1889

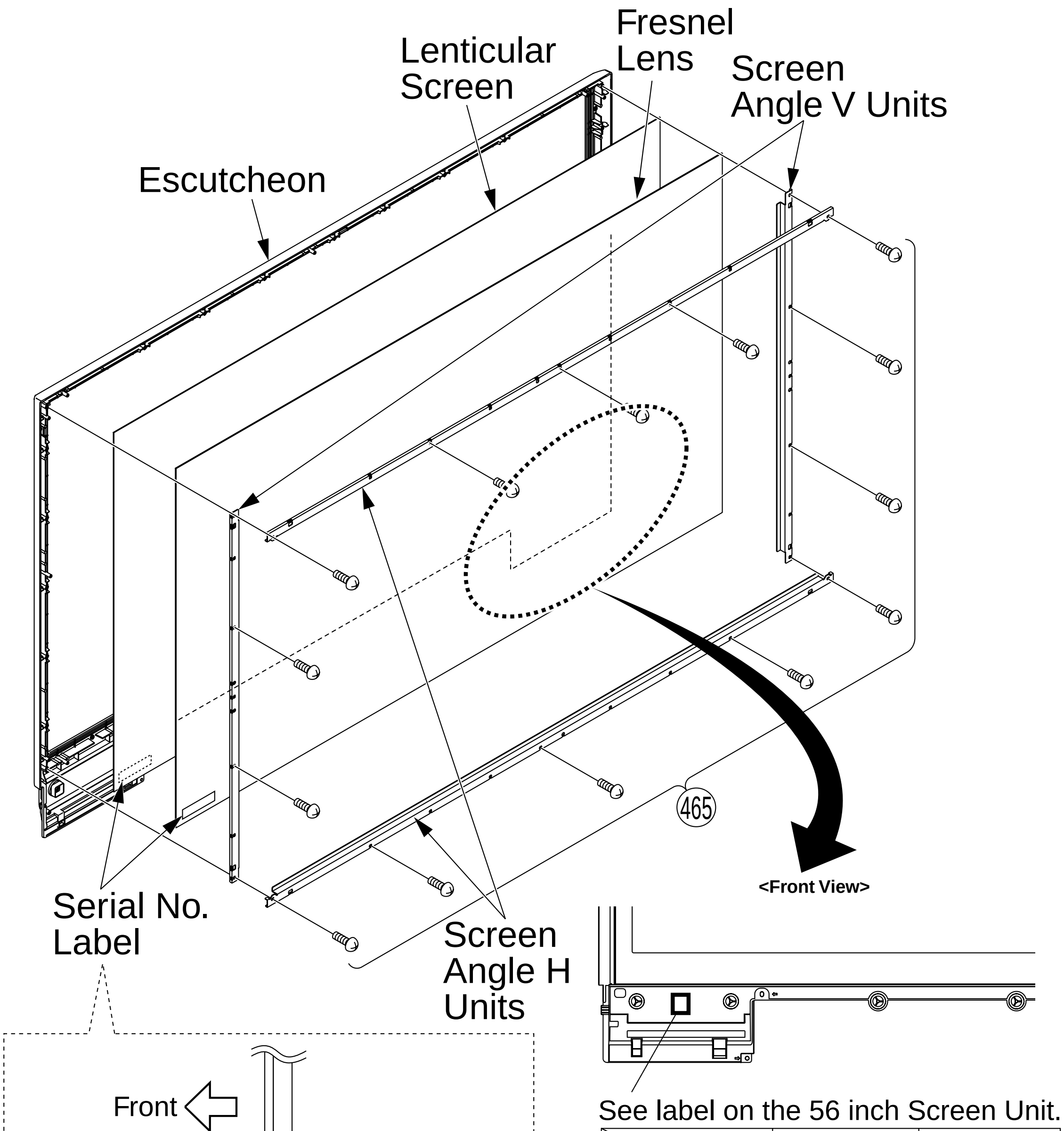
Fig. D5-1

Replacement Note for 56 inch Screen Unit:
Because there are two types of 56 inch Screen Unit, a label (T or K) is indicated on the Screen Unit.
When servicing a 56 inch Screen Unit, remove the Front Cover Unit and confirm the label on the unit. Then, order the correct parts according to the above chart.

(PT-56LCX66)
Screen Unit (LSYK1871) is compatible with the Screen Unit (LSYK1888) as a unit.

(PT-56LCX16/PT-56LCX16-K)
Screen Unit (LSYK1872) is compatible with the Screen Unit (LSYK1889) as a unit.

3. Remove the 2 Screen Angle H Units and the 2 Screen Angle V Units by removing the 14 Screws (465), and remove the Fresnel Lens and the Lenticular Screen.


Fresnel Lens
Lenticular Screen
Screen Angle V Units
Escutcheon
465
<Front View>
Serial No. Label
Screen Angle H Units
Front
Serial No. Label of Lenticular Screen
Serial No. Label of Fresnel Lens
See label on the 56 inch Screen Unit.

label / individual parts	T by TOPPAN	K by KURARAY
Fresnel Lens	LSGP0501	LSGP0547
Lenticular Screen	LSGP0502	LSGP0548
Screen Angle H Unit	LSXA0825	LSXA0830
Screen Angle V Unit	LSXA0826	LSXA0831

Fig. D5-2

Replacement Note for all Screen Units:
When replacing the Fresnel Lens and the Lenticular Screen, it is imperative that dust, etc., does not adhere between the Fresnel Lens and the Lenticular Screen. Due to this risk, it is strongly recommended to replace the Screen Unit as a unit.

Replacement Note for 56 inch Screen Unit:
Because there are two types of 56 inch Screen Units and individual parts contained in the Screen Unit are not compatible, a label (T or K) is indicated on the Screen Unit.
When servicing individual parts of a 56 inch Screen Unit, remove the Front Cover Unit and confirm the label on the Screen Unit. Then, order the correct parts according to the above chart.

REMOVAL OF THE MIRROR FROM THE BACK COVER

1. Remove the Screen Unit. Refer to Steps 1 ~ 2 in "REMOVAL OF THE SCREEN UNIT FROM THE DISPLAY."
2. **(For 52 inch models)**
   1) Remove the 2 Mirror Holder H Units and the 2 Mirror Holder V Units by removing the 8 Screws (401).
   2) Remove the Mirror from the top by releasing the Back Cover slots.

   Note: The Mirror is fragile. Handle with extreme care.

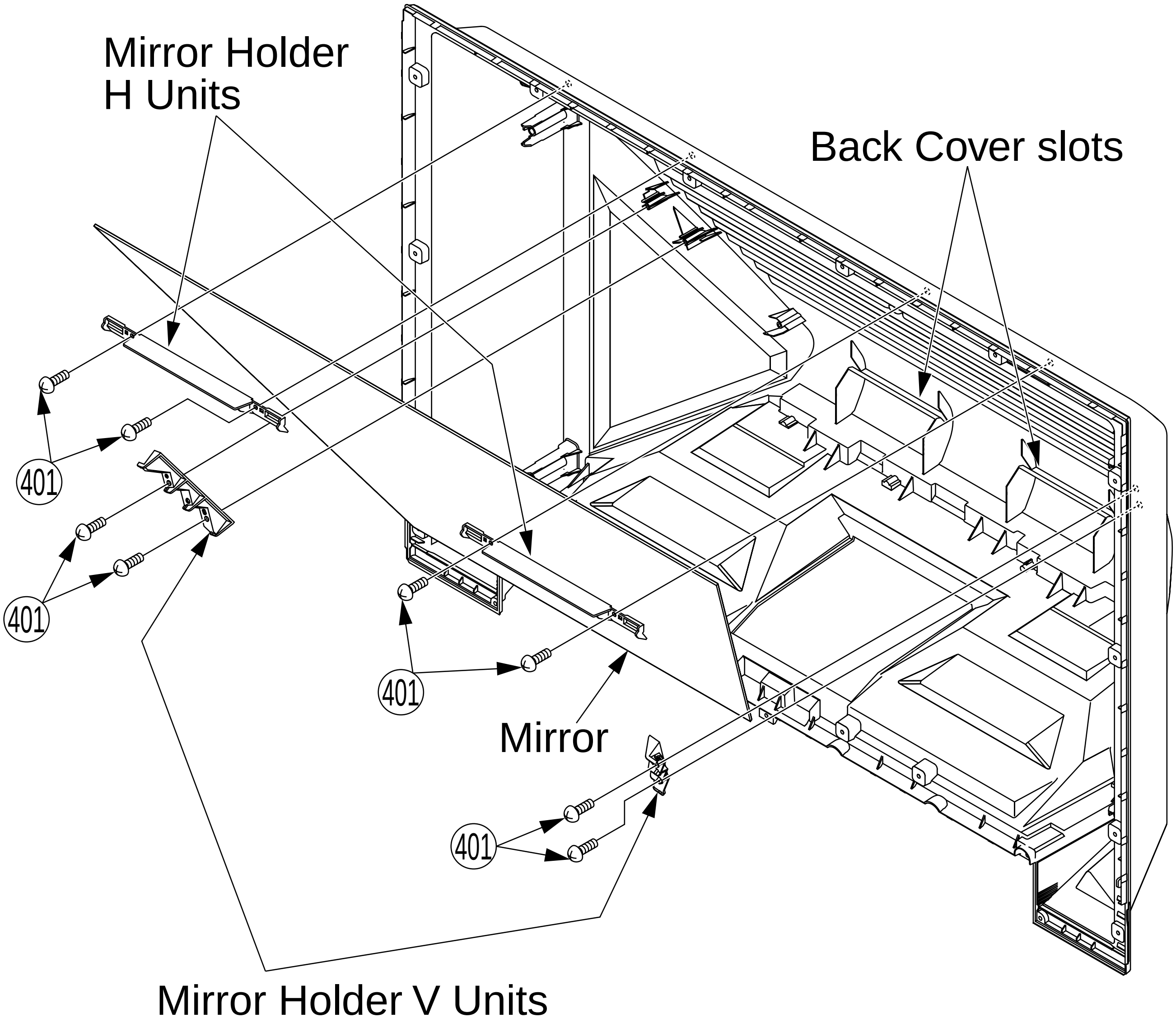


Fig. D6-1

Reassembly Notes for Mirror:
Install the Mirror using the following procedures:

1) Hold the edge of the Mirror, and insert the Mirror from the top into the Back Cover slots carefully.
   When handling the Mirror, do not touch the Mirror surface.
2) Install the 2 Mirror Holder H Units and the 2 Mirror Holder V Units on the Mirror and tighten the 8 Screws (401).

(For 56/61 inch models)

1) Remove the 3 Mirror Holder H Units and the 2 Mirror Holder V Units by removing the 10 Screws (401).
2) Remove the Mirror from the top by releasing the Back Cover slots.

Note: The Mirror is fragile. Handle with extreme care.

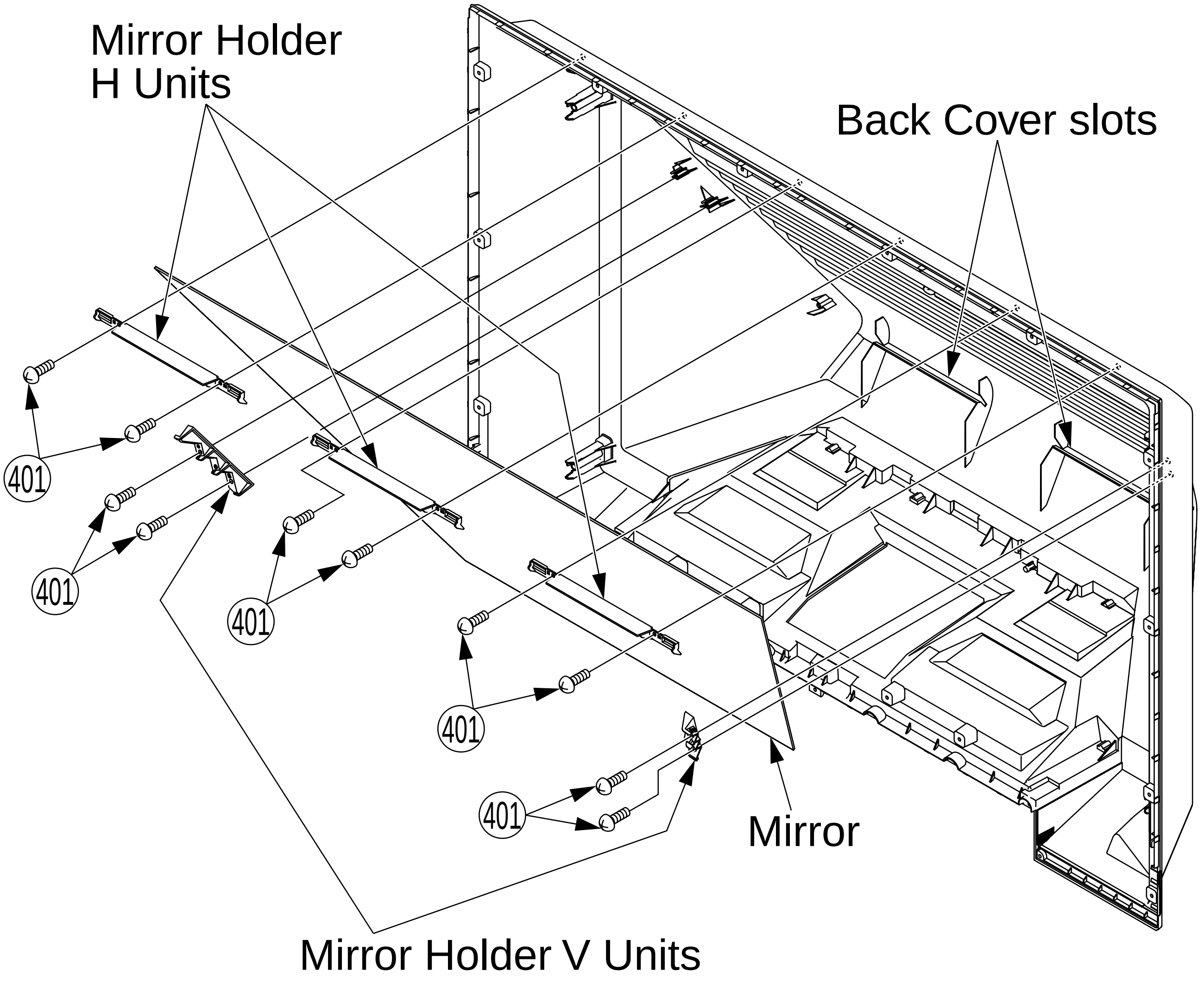

Mirror Holder H Units
Back Cover slots
401
401
401
401
401
Mirror
Mirror Holder V Units

Fig. D6-2

Reassembly Notes for Mirror:
Install the Mirror using the following procedures:

1) Hold the edge of the Mirror, and insert the Mirror from the top into the Back Cover slots carefully.
   When handling the Mirror, do not touch the Mirror surface.
2) Install the 3 Mirror Holder H Units and the 2 Mirror Holder V Units on the Mirror and tighten the 10 Screws (401).

REMOVAL OF THE POWER SWITCH P.C.B. FROM THE CABINET

1. Remove the Rear Cover Unit. Refer to Step 1 in "REMOVAL OF THE TV UNIT AND THE DIGITAL TUNER P.C.B. FROM THE CABINET."
2. 1) Remove the 2 Screws (465) and disconnect Connector CN6801.
   2) Remove the Power Switch P.C.B. from the rear.

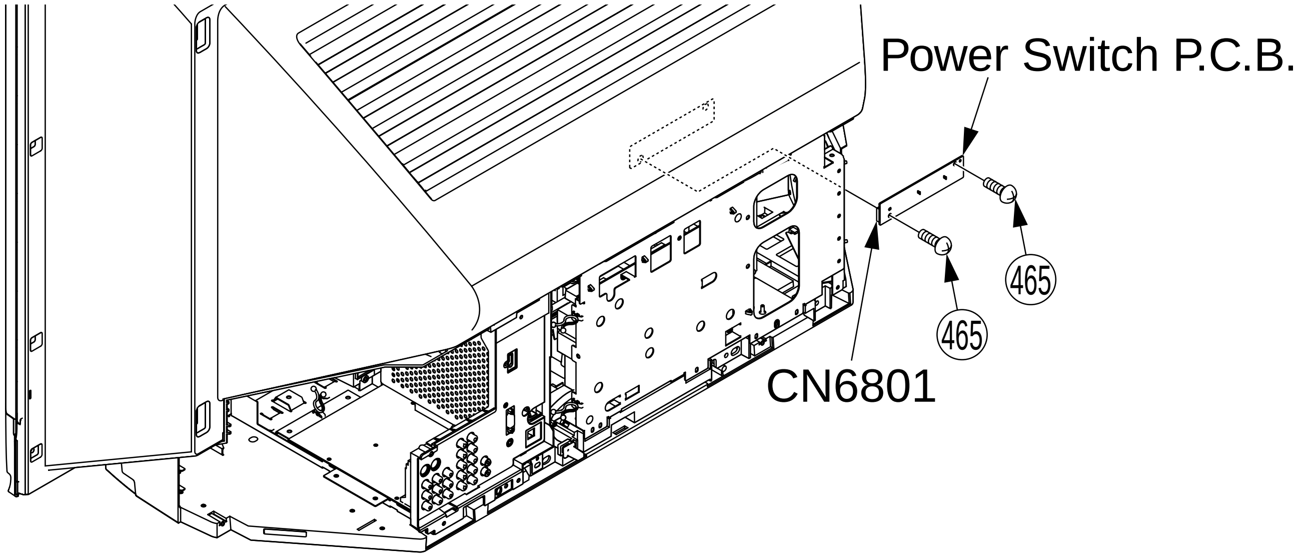


Fig. D7

9.2. Projection Section

DISASSEMBLY METHOD FOR PROJECTION UNIT

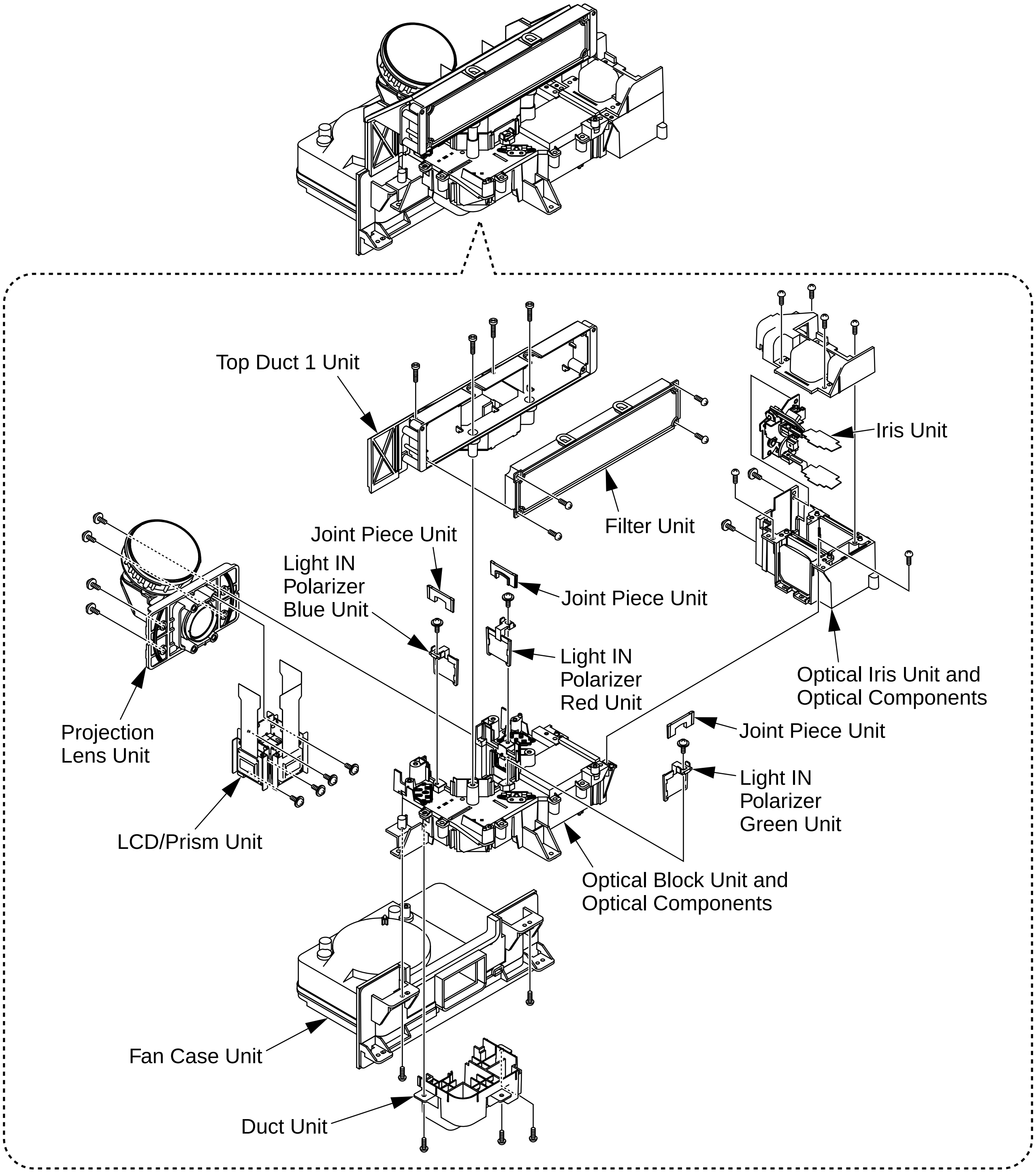
When reassembling, perform the steps in reverse order. Bend, route and dress the wires as they were originally.

Note :

a. Place a cloth or some other soft material under the P.C. Boards or Unit to prevent damage.
b. When reinstalling, ensure that the connectors are connected firmly and electrical components have not been damaged.
c. Do not supply power to the unit during disassembly and reassembly.

Note:

When servicing these inner parts (LCD/Prism Unit, Light IN Polarizer Unit, etc.) of the Projection Unit, it is strongly recommended to replace at a clean bench of over 10K.


Top Duct 1 Unit
Iris Unit
Filter Unit
Joint Piece Unit
Light IN Polarizer Blue Unit
Joint Piece Unit
Light IN Polarizer Red Unit
Optical Iris Unit and Optical Components
Projection Lens Unit
Joint Piece Unit
Light IN Polarizer Green Unit
LCD/Prism Unit
Optical Block Unit and Optical Components
Fan Case Unit
Duct Unit

REMOVAL OF THE POWER P.C.B., THE LAMP UNIT, AND THE FAN 3

1. 1) Open the Power P.C.B/Power PCB Mount Metal by removing the 6 Screws (402, 421).
   2) Disconnect Connector CN1520 (Thermal Fuse) and release from the clamper.
   3) Remove the Lamp Unit by turning the Knob.
2. 1) Disconnect Lamp Connector by removing the 2 Screws (451).
   2) Remove the Power P.C.B. by removing the 5 Screws (479) and release from the spacer and AC plug Slot.
3. 1) Disconnect Connector CN2703 (Fan 3) and from the clamper.
   2) Remove Fan 3/Fan Mount Metal by removing the 2 Screws (421).
   3) Remove Fan 3 from the Fan Mount Metal by removing the 2 Screws (492).

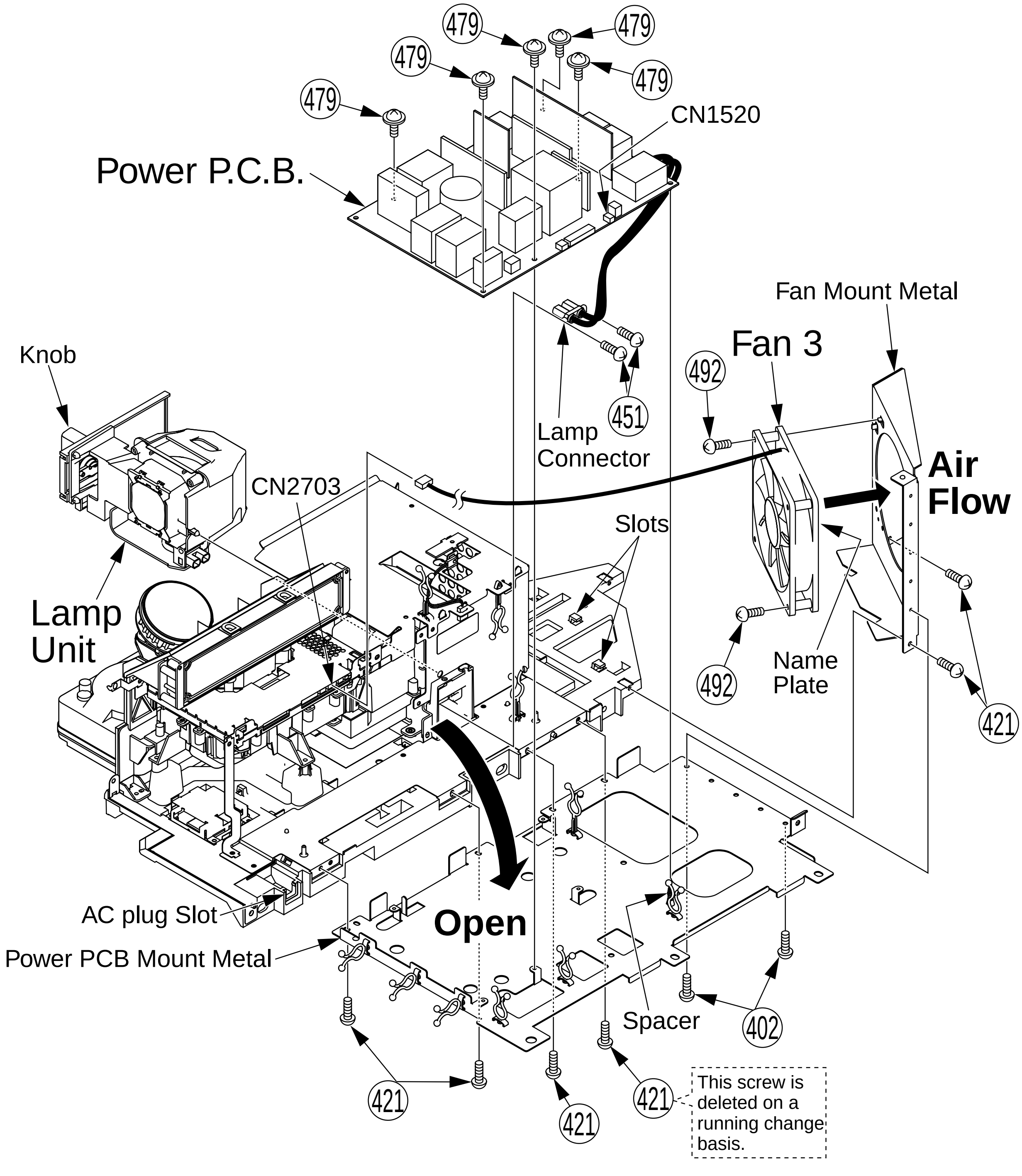
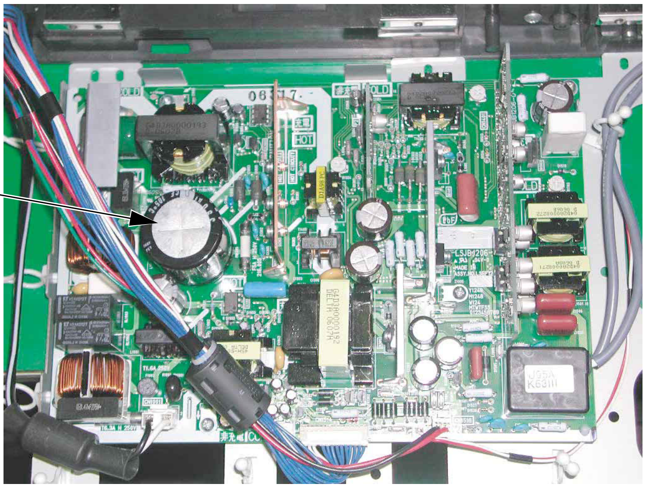

479
479
479
479
479
CN1520
Power P.C.B.
Fan Mount Metal
Fan 3
Knob
492
451
Lamp Connector
CN2703
Air Flow
Slots
Lamp Unit
Name Plate
492
421
AC plug Slot
Open
Power PCB Mount Metal
Spacer
402
421
421
421
This screw is deleted on a running change basis.

Fig. P0

Reassembly Note for Fan 3:
Install Fan 3 so that the name plate (manufacture’s name etc.) faces out and is visible from the rear.

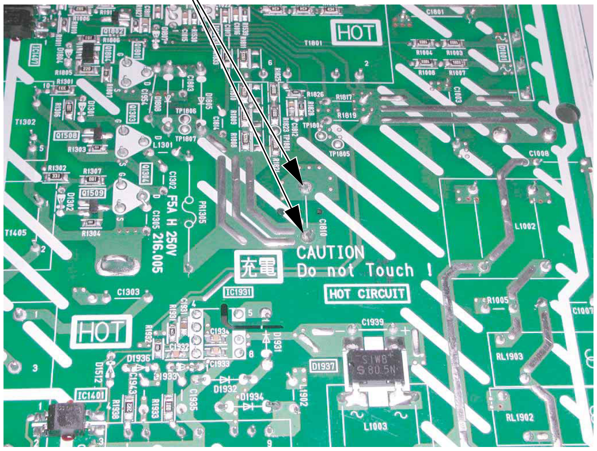
CAUTION:

High voltage exists on the Power P.C.B. While removing Power P.C.B., do not touch any parts on the board. Hold the edge of the board when removing it.


C1810:
High voltage
generated.
(approx. 400 V)

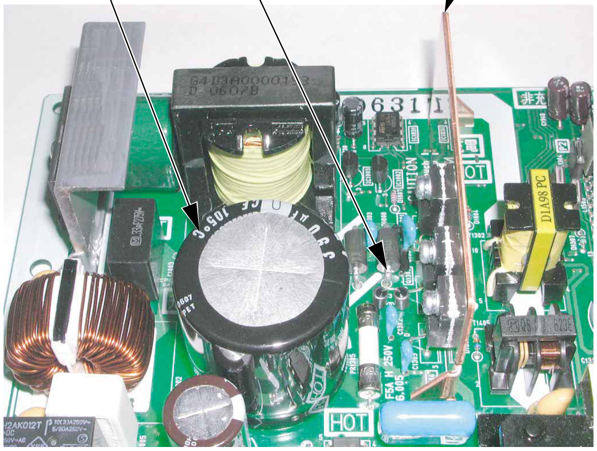
How to discharge the capacitor (C1810) on the Power P.C.B.

High voltage exists in C1810 after the AC Cord has been plugged in even once.
Before servicing, be sure to discharge the C1810 terminals by using a resistor of 100 ohm/10 W or over for 3 seconds.
Or, discharge D1808 cathode to the Radiation Plate (HOT GND).


C1810 terminals

(foil side)

OR


D1808
cathode
Radiation Plate
(HOT GND)
C1810

(component side)

REMOVAL OF THE LCD DRIVE P.C.B.

1. Remove the Power P.C.B., the Lamp Unit, and the Fan 3. Refer to Steps 1 ~ 3 in "REMOVAL OF THE POWER P.C.B., THE LAMP UNIT, AND THE FAN 3."
2. 1) Remove the Screw (402) on the GND Wire of LVDS Cable, and disconnect the LVDS Cable from Connector CN2502.
   Note: refer to next page.
   2) Remove the LCD Drive GND Plate E by removing the Screw (421).
3. 1) Remove the 4 Screws (421) and peel the Sealing Tape 4 on the Top Duct as shown in View A.
   2) Remove the Top Duct 2 Unit.
4. Remove the Filter Unit by removing the 4 Screws (421).
   Note: Do not touch the Air Filter.
5. Remove the Top Duct 1 Unit by removing the 4 Screws (475).
6. 1) Disconnect Connectors CN2301, CN2501, CN2701, CN2702, CN2704, CN2705.
   2) Remove the LCD Shield by removing the 4 Screws (421).
   3) Disconnect Connectors CN2001, CN2002, CN2003 (LCD Panel Flexible Cables).
   Note: Take extreme care not to damage the LCD Panel Flexible Cable.
   4) Remove the LCD Drive P.C.B. (with the Shield Case) by removing the Screw (402).
7. Remove the LCD Drive Shield Case Top and the LCD Drive Shield Case Bottom.

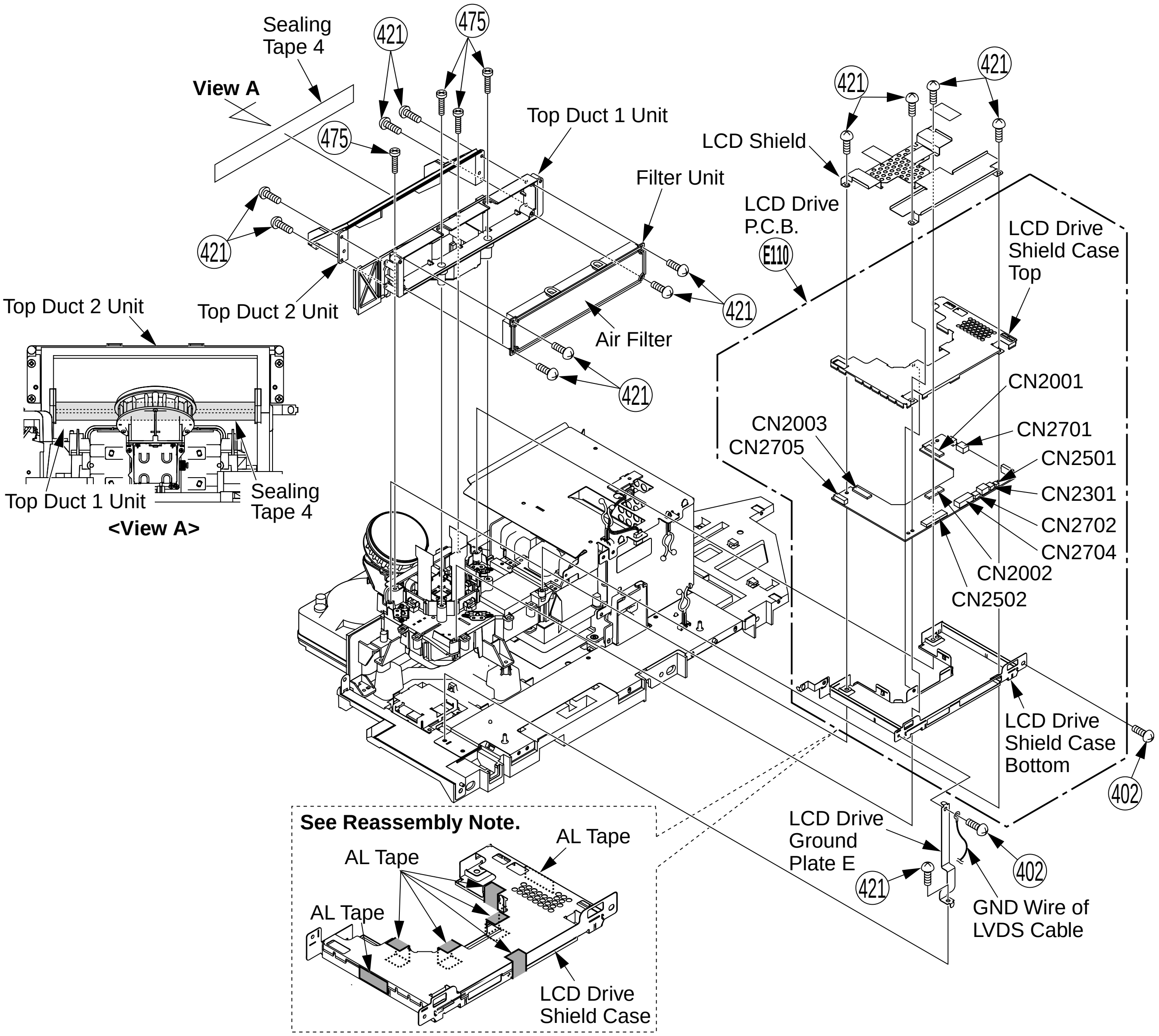

Sealing Tape 4
421
475
View A
475
421
Top Duct 1 Unit
421
421
LCD Shield
Filter Unit
LCD Drive P.C.B.
E110
LCD Drive Shield Case Top
421
421
Top Duct 2 Unit
Top Duct 2 Unit
Air Filter
421
CN2001
CN2003
CN2705
CN2701
CN2501
CN2301
CN2702
CN2704
CN2002
CN2502
Top Duct 1 Unit
Sealing Tape 4
<View A>
LCD Drive Shield Case Bottom
402
See Reassembly Note.
AL Tape
AL Tape
AL Tape
LCD Drive Ground Plate E
402
421
GND Wire of LVDS Cable
LCD Drive Shield Case

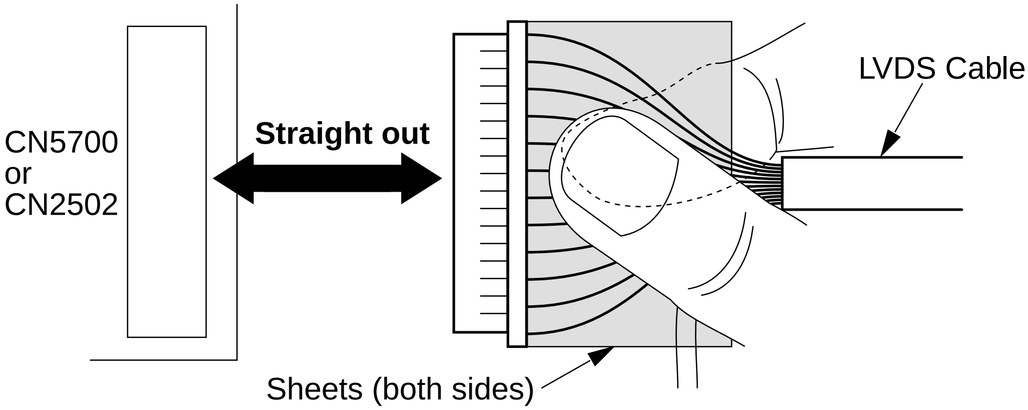
Fig. P1

Reassembly Note for the LCD Drive Shield Case

Even if there was no AL Tape on the Shield Case, after removing the LCD Drive Shield Case Top and Bottom even once, be sure to place 7 pieces of AL Tape on the LCD Drive P.C.B. as shown above.

Note:

Grasping the center of both sides of the sheet or cable with your fingers, slowly and steadily pull the LVDS Cable straight out from the connector. Do not joggle the LVDS cable while disconnecting. Reconnecting is done in the same manner.


CN5700
or
CN2502
Straight out
LVDS Cable
Sheets (both sides)

For early models:
LVDS Cables without sheets
are done in the same manner.

REMOVAL OF THE LIGHT IN POLARIZER UNITS

1. Remove the LCD Drive P.C.B. Refer to Steps 1 ~ 6 in "REMOVAL OF THE LCD DRIVE P.C.B."
2. Remove the 3 Joint Piece Units.
3. Remove the Light IN Polarizer Red, Green, Blue Unit by removing the 3 Screws (423).
   Note:
   1. Use extreme caution not to damage the Light IN Polarizer Units (Red, Green, Blue), when servicing.
   2. Clean the Light IN Polarizer Units if necessary. Refer to "Cleaning Methods" in Maintenance.

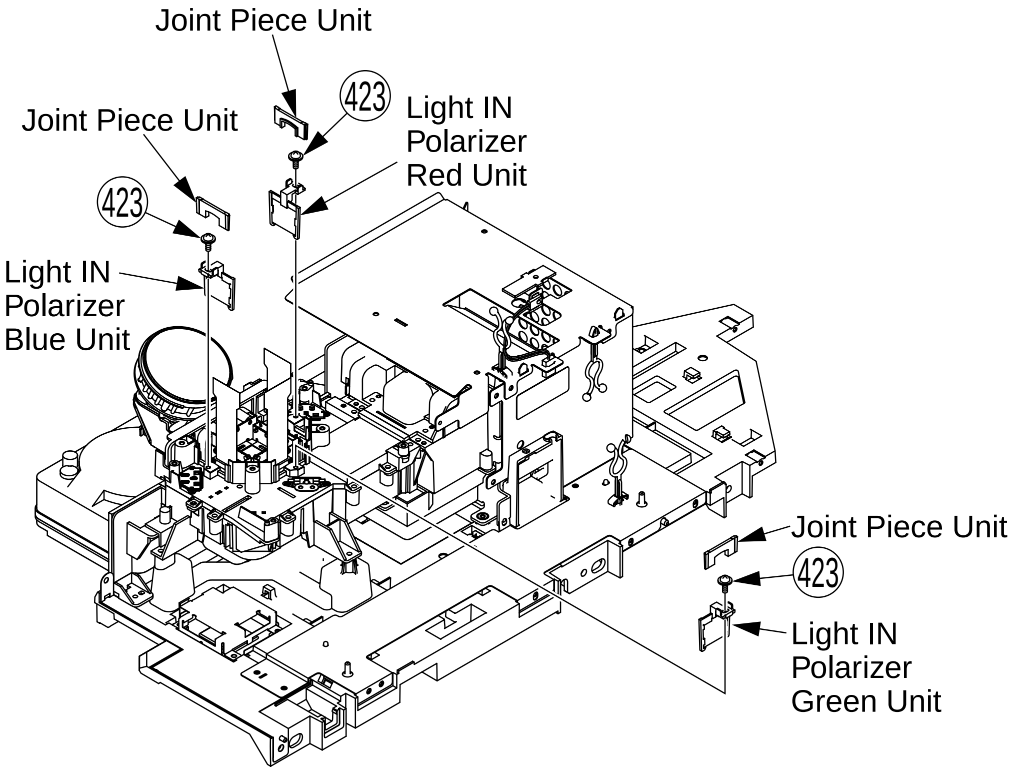

Joint Piece Unit
Joint Piece Unit
423
Light IN Polarizer Red Unit
423
Light IN Polarizer Blue Unit
Joint Piece Unit
423
Light IN Polarizer Green Unit

Fig. P2-1

Reassembly Note for the Light IN Polarizer Unit (Red, Green, Blue):

1) After replacing the Light IN Polarizer Units, be sure to perform Polarizer Adjustment.
2) Make sure of the mark color to distinguish the Light IN Polarizer Units (Polarizer).

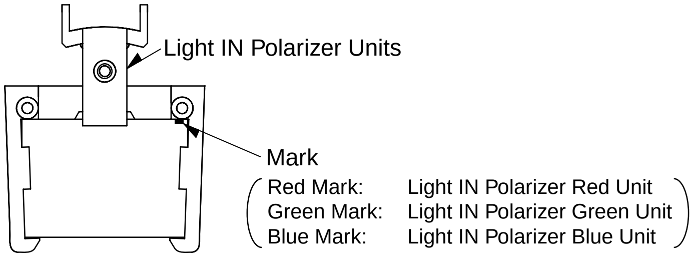

Light IN Polarizer Units
Mark
Red Mark: Light IN Polarizer Red Unit
Green Mark: Light IN Polarizer Green Unit
Blue Mark: Light IN Polarizer Blue Unit

Fig. P2-2

REMOVAL OF THE LCD/PRISM UNIT, THE PROJECTION LENS UNIT, THE FAN CASE UNIT (FAN 1), THE FAN 2, AND THE COVER SWITCH P.C.B.

1. Remove the LCD Drive P.C.B. Refer to Steps 1~6 in "REMOVAL OF THE LCD DRIVE P.C.B."
2. Remove the Lamp Side Panel with Lamp Top Panel by removing the 2 Screws (421).
3. 1) Disconnect Connector CN9500 on the Iris P.C.B. and release from the clamper.
   2) Remove the Engine Frame by removing the 5 Screws (491).
4. Remove the Cover Switch P.C.B. by removing Screw (421).
5. Remove Fan 2 by removing the 2 Screws (493).

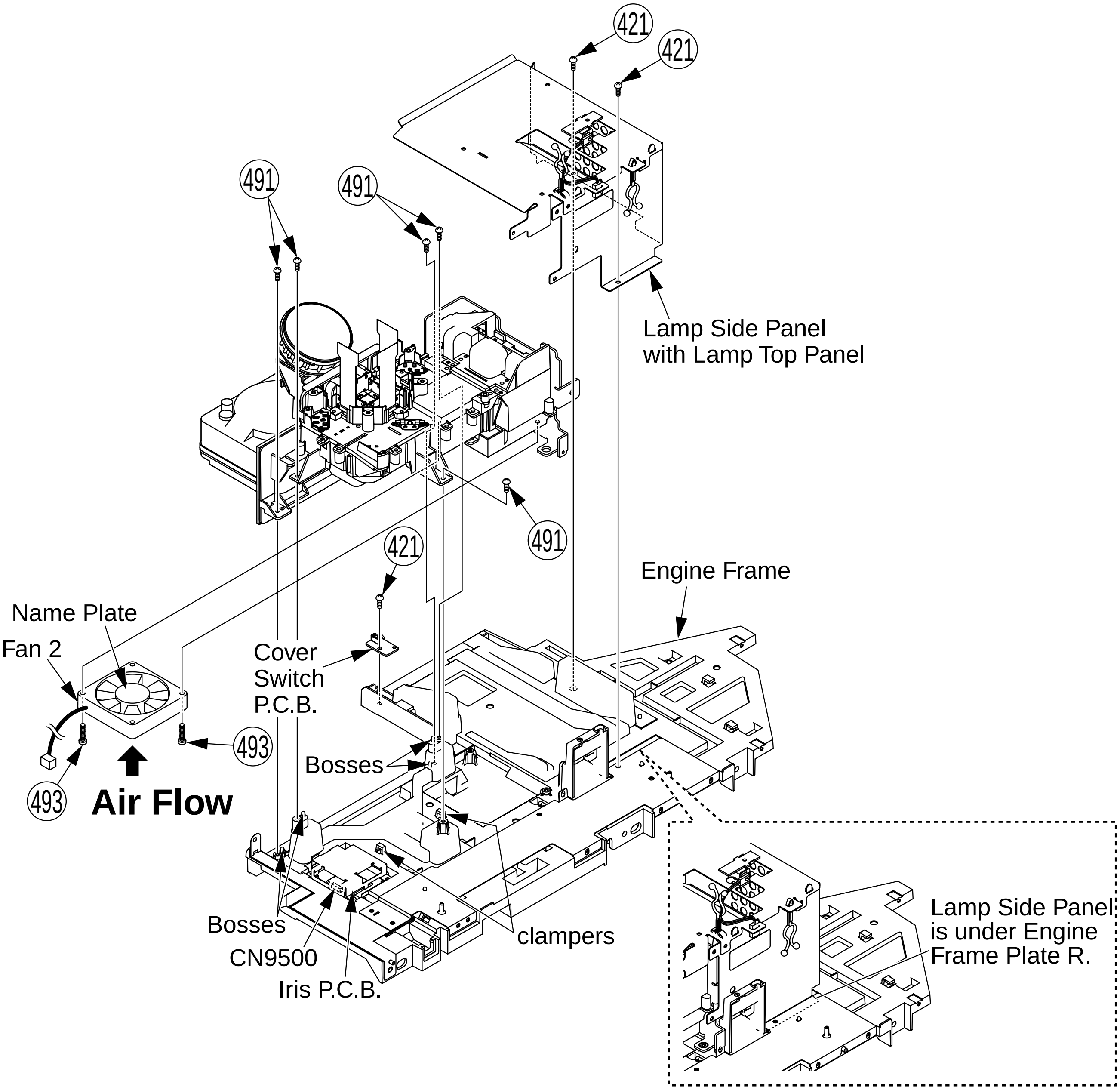

421
421
491
491
Lamp Side Panel with Lamp Top Panel
491
421
Engine Frame
Name Plate
Fan 2
Cover Switch P.C.B.
493
Bosses
493
Air Flow
Bosses
CN9500
Iris P.C.B.
clampers
Lamp Side Panel is under Engine Frame Plate R.

Fig. P3-1

Reassembly Note for Lamp Side Panel:
Install so that the Lamp Side Panel is under the Engine Frame Plate R.

Reassembly Note for Fan 2:
Install Fan 2 with the 2 Screws (493) so that the name plate (manufacture’s name etc.) faces in (not visible from the outside).

6. Remove the Duct Unit by removing the 3 Screws (421).
7. Remove the Fan Case Unit by removing the 2 Screws (421).
   Note:
   Do not touch the Air Filters.
8. 1) Remove both the Projection Lens Unit and the LCD/Prism Unit by removing the 4 Screws (434).
   Note:
   1. Use extreme caution when handling the LCD/Prism Unit to avoid damage, dust, spots (especially fingerprints), etc.
   2. Clean the LCD/Prism Unit if necessary. Refer to "Cleaning Methods" in Maintenance.

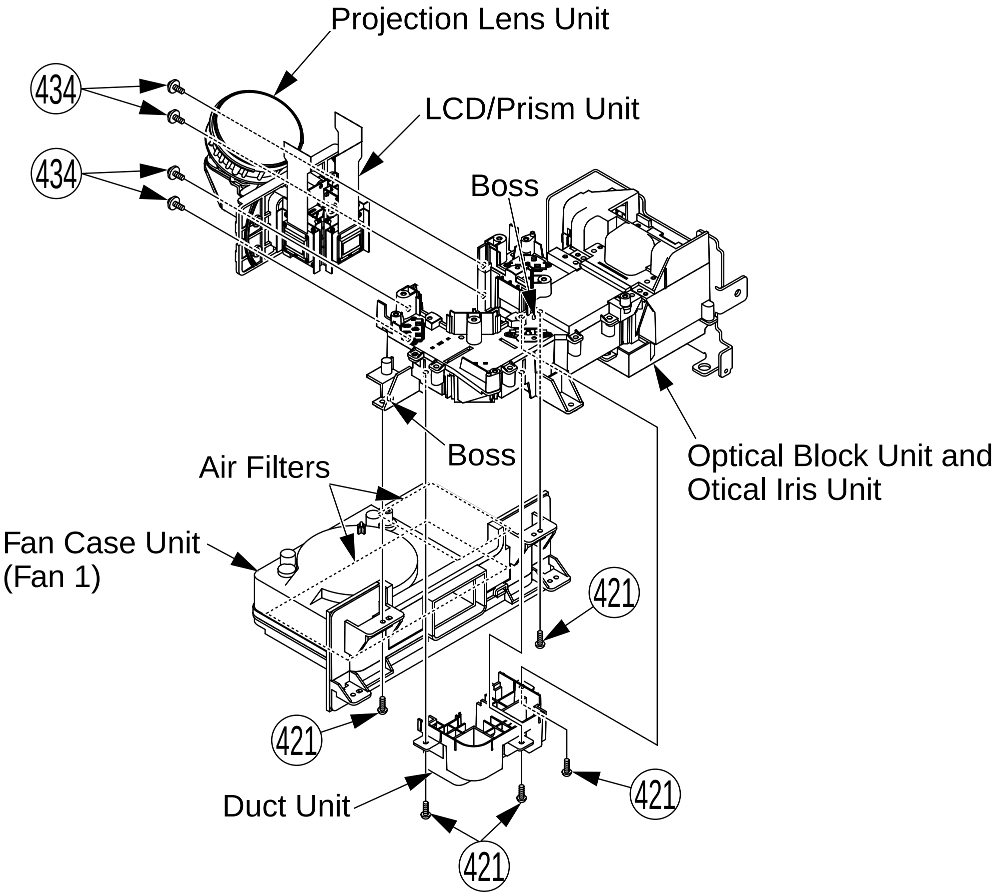

Projection Lens Unit
434
LCD/Prism Unit
434
Boss
Boss
Optical Block Unit and
Otical Iris Unit
Air Filters
Fan Case Unit
(Fan 1)
421
421
Duct Unit
421
421

Fig. P3-2

2) Remove the LCD/Prism Unit from the Projection Lens Unit by removing the 4 Screws (423).

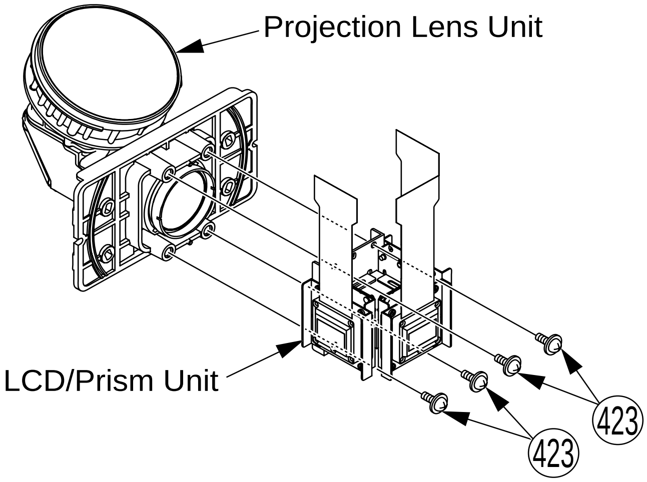
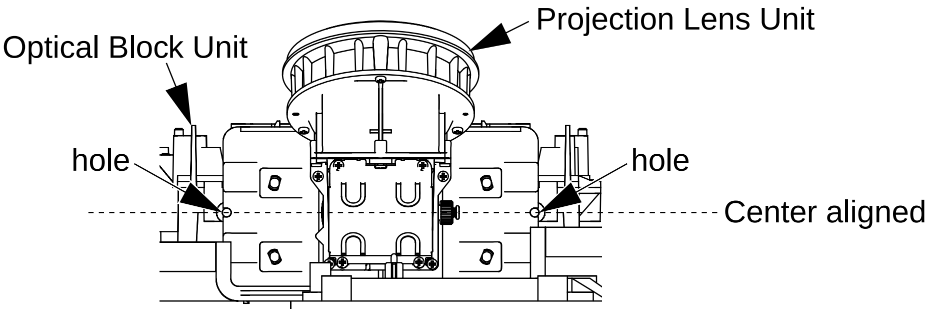

Projection Lens Unit
LCD/Prism Unit
423
423

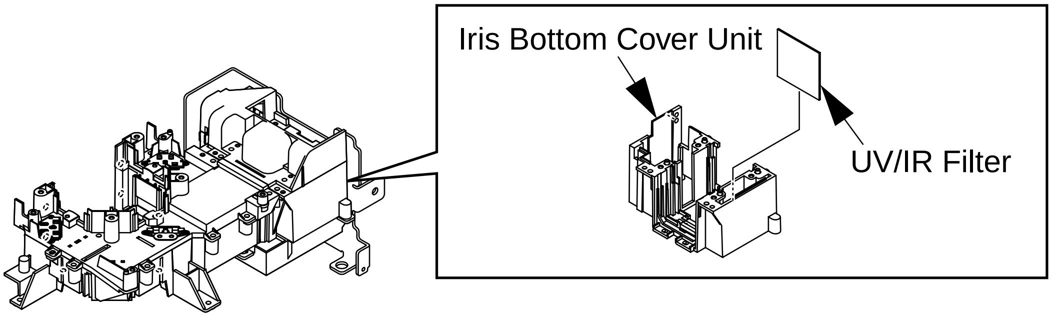
Fig. P3-3

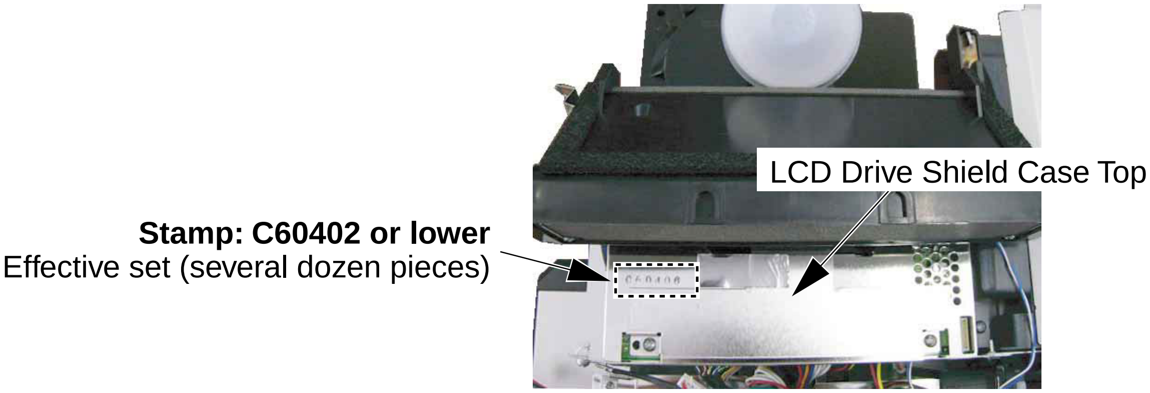
Reassembly Note for LCD/Prism Unit and Projection Lens Unit:

1. Be sure to install the LCD/Prism Unit and the Projection Lens Unit before installing the Fan Case Unit. Otherwise, the Fan Case Sponge, etc. will not fit properly with the Projection Lens Unit.
2. Be sure to install the LCD/Prism Unit and the Projection Lens Unit in the Optical Block Unit as shown.


Projection Lens Unit
Optical Block Unit
hole
hole
Center aligned

(For 61 inch models)
Replacement Note for Iris Bottom Cover Unit:
When replacing with a new Iris Bottom Cover Unit (LSXA0755), see the stamp on the LCD Drive Shield Case Top.
If stamp number is C60402 or lower, replace with a new UV/IR Filter (LSDL0350) at the same time.


Iris Bottom Cover Unit
UV/IR Filter


LCD Drive Shield Case Top
Stamp: C60402 or lower
Effective set (several dozen pieces)

REMOVAL OF THE IRIS P.C.B.

1. 1) Disconnect Connectors CN9500, CN9502.
   2) Remove the Iris P.C.B. by removing the 3 Screws (421).

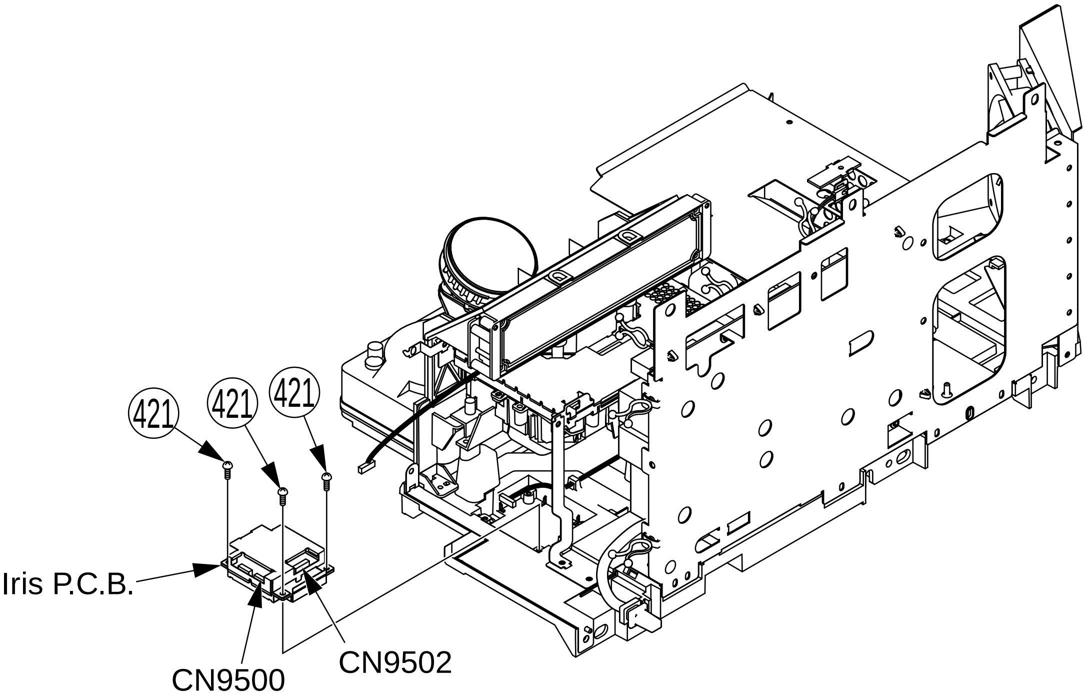
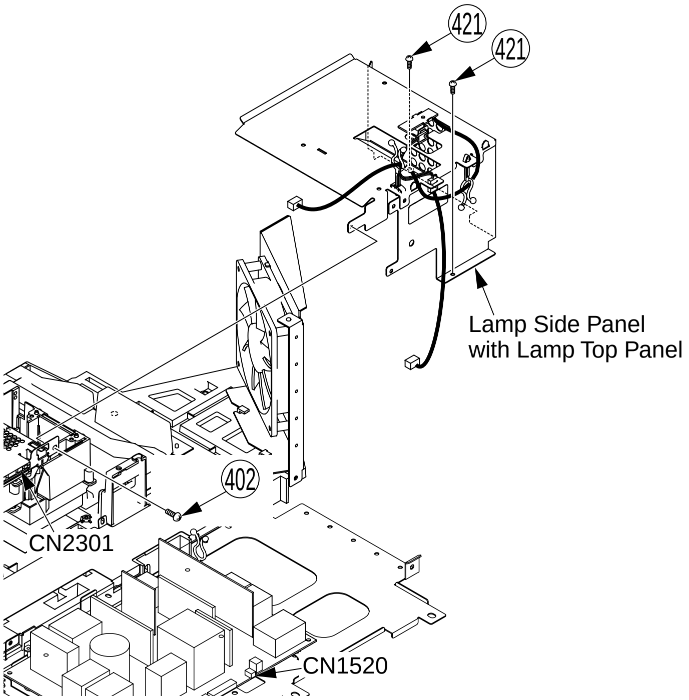

421
421
421
Iris P.C.B.
CN9500
CN9502

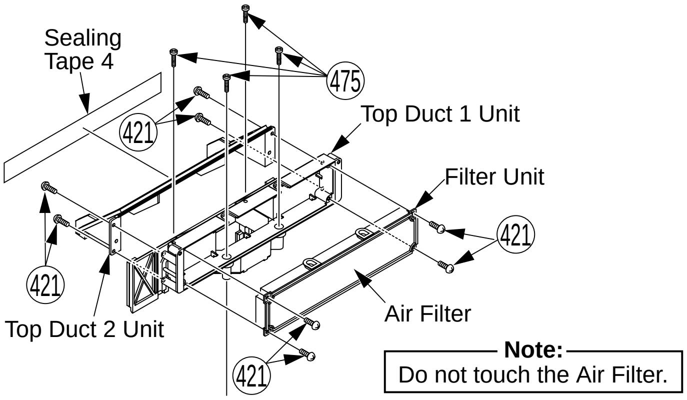
Fig. P4

REMOVAL OF THE IRIS UNIT

1. Removing the Lamp Side Panel with Lamp Top Panel

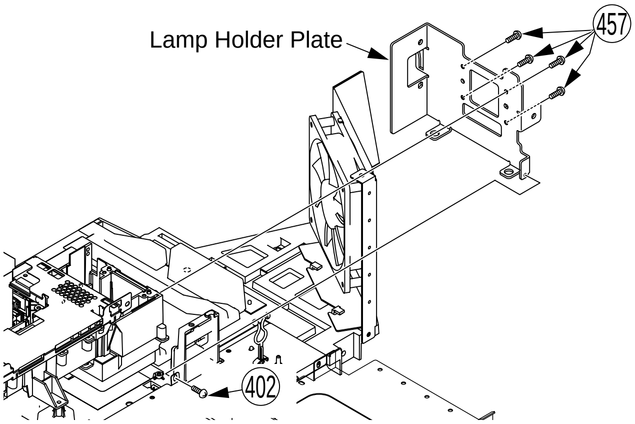

421
421
Lamp Side Panel
with Lamp Top Panel
402
CN2301
CN1520

2. Removing the Filter
   a) Filter Unit
   b) Sealing Tape 4
   c) Top Duct 2 Unit
   d) Top Duct 1 Unit

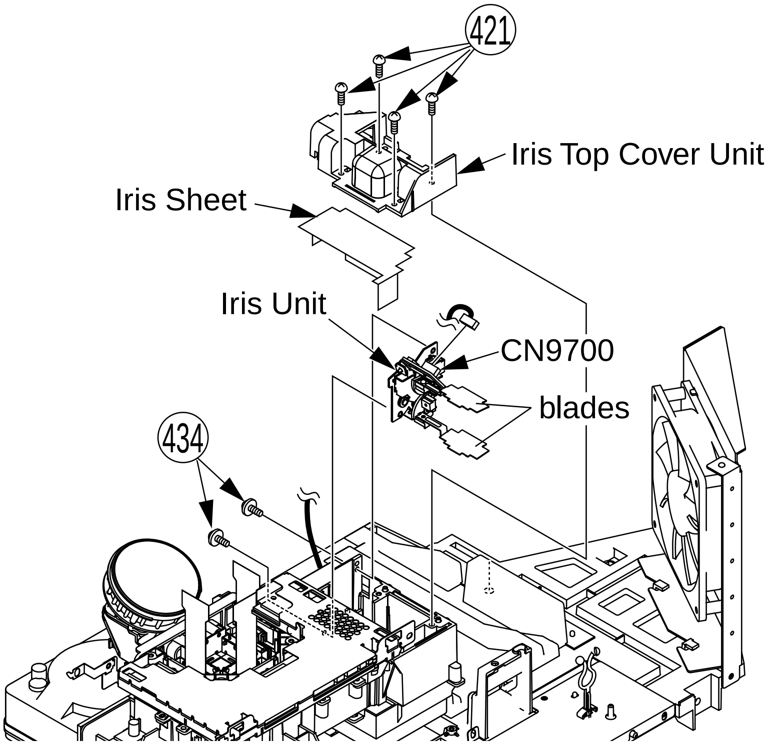

Sealing
Tape 4
475
421
Top Duct 1 Unit
Filter Unit
421
421
Air Filter
Top Duct 2 Unit
421

Note:
Do not touch the Air Filter.

3. Removing the Lamp Holder Plate

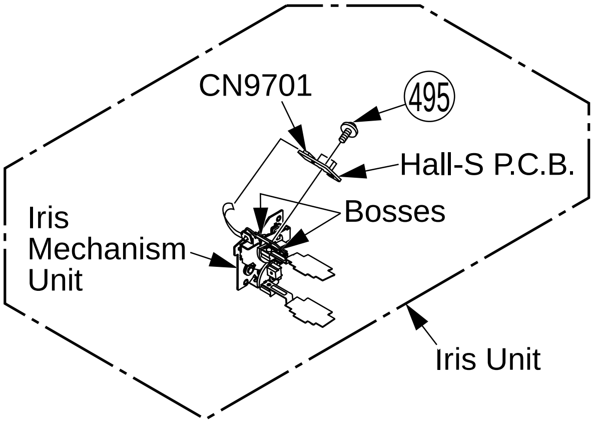

Lamp Holder Plate
457
402

4. Removing the Iris Unit


421
Iris Top Cover Unit
Iris Sheet
Iris Unit
CN9700
blades
434

Note:
Do not touch or damage the blade of the Iris Unit while handling.

5. Removing the Hall-S P.C.B.


CN9701
495
Hall-S P.C.B.
Bosses
Iris
Mechanism
Unit
Iris Unit

Reassembly Note for Iris Unit:

1. 1) Install the Iris Unit so as not to touch or damage the Hall Sensor, blades of the Iris Unit while handling.
   2) Place the Iris Sheet.
   3) Tighten the 2 Screws (434).
   4) Install the Iris Top Cover Unit so as not to pinch the Connector Cable with the 4 Screws (421).
2. After installing, perform the IRIS CONFIRMATION. Refer to "Adjustment Procedures 2."

10 Measurements and Adjustments

10.1. Adjustment Procedures 1

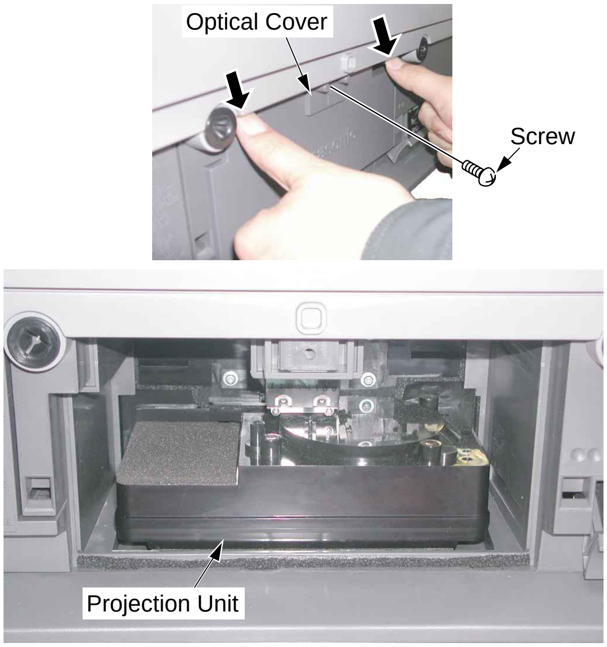
WHEN INSTALLING THE PROJECTION UNIT OR THE BASE BODY UNIT INTO THE UNIT AT THE USER'S LOCATION:

The following ADJUSTMENT of the Projection Unit must be performed.

a. Focus Adjustment
   Note:
   The Focus Adjustment is not normally necessary when reinstalling.
   However, the Focus Adjustment should be performed when replacing the new Projection Unit or new Base Body Unit.
b. Mechanical Picture Position Adjustment
c. Electrical Picture Position Adjustment

Adjustment Preparation:

1. Install all parts except the Front Cover Unit
   Then, remove the Optical Cover by removing the Screw and 2 latch tabs.

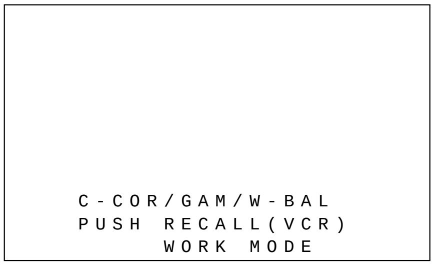


(With Front Cover Unit and Optical Cover removed)
<Front View>

Fig. M1-1

Note:
When the rear cover is disassembled, the screen can be moved back and forth, which could affect the video display vertical position. This could also cause the vertical adjust to be at or near its limit.
Only try the picture position adjustment with the rear cover assembled!

2. Turn the power on.
3. Press and hold the VOLUME DOWN button on the unit and the RECALL key on the remote for more than 5 seconds in power on condition. "WORK MODE" will appear on the screen.

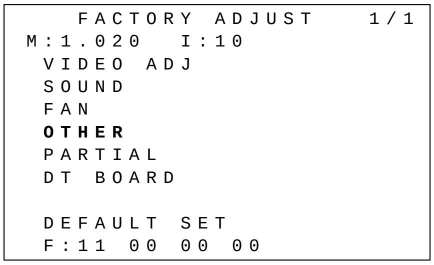


```
   C-COR/GAM/W-BAL
   PUSH RECALL(VCR)
       WORK MODE
```

<Work Mode>

Fig. M1-2

4. Press the VCR key to go to VCR mode, then the RECALL key on the remote for more than 1 second. "FACTORY ADJUST" will appear on the screen.

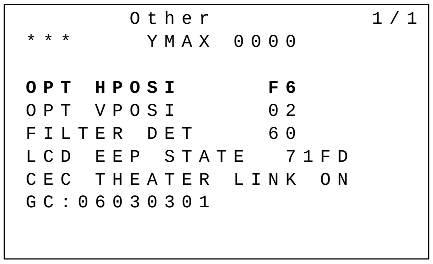


```
    FACTORY ADJUST    1/1
 M:1.020  I:10
  VIDEO ADJ
  SOUND
  FAN
  OTHER
  PARTIAL
  DT BOARD

  DEFAULT SET
  F:11 00 00 00
```

<Factory Adjust mode>

Fig. M1-3

5. Press the TV key to return to TV mode, then press the CH UP/DOWN key on the remote to select "OTHER" on menu and press the OK key. "OTHER" menu will appear.

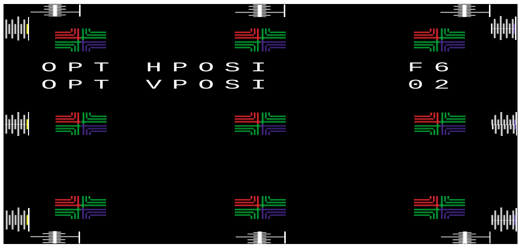


```
        Other            1/1
 ***      YMAX 0000

 OPT HPOSI        F6
 OPT VPOSI        02
 FILTER DET       60
 LCD EEP STATE    71FD
 CEC THEATER LINK ON
 GC:06030301
```

<Factory Adjust Mode>
(OTHER menu 1/1)

Fig. M1-4

6. Press the VOLUME UP/DOWN key on the remote. (Focus screen will appear.)



```
 OPT  HPOSI        F6
 OPT  VPOSI        02
```

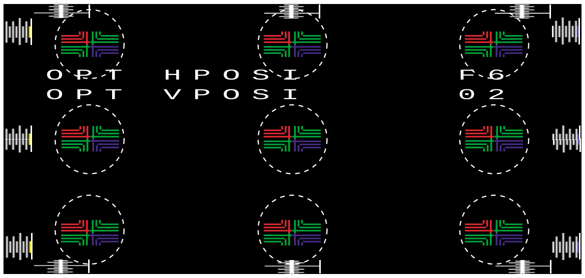
<Focus Screen>

To release this mode:

1. After completing the ADJUSTMENT, press the CH UP/DOWN key on the remote to return to the OTHER menu.
2. Press RECALL key twice to return to Work Mode, and press and hold the VOLUME DOWN button on the unit and the RECALL key on the remote for more than 5 seconds.
   Or, turn off the power.
3. Install the Optical Cover with the Screw and the Front Cover Unit.

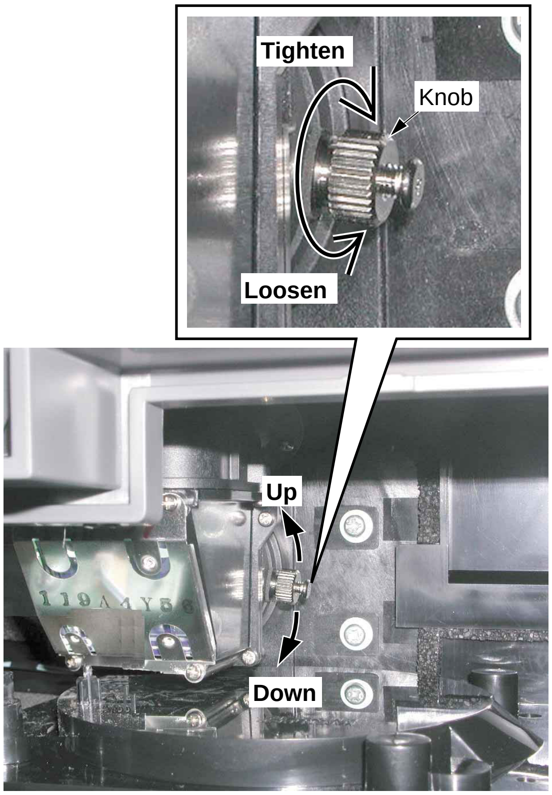
a. Focus Adjustment

1) Confirm that each of the pixels in the nine portions are clearly visible.


O P T
H P O S I
F 6
O P T
V P O S I
0 2

<Focus Screen>

2) If not, loosen the Knob on the Projection Lens until the Knob can be moved.

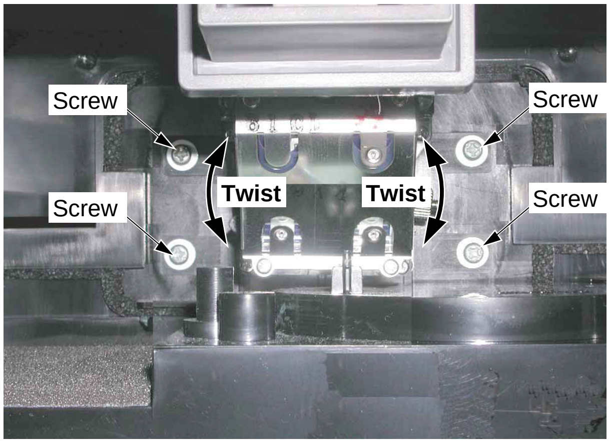

Tighten
Knob
Loosen
Up
Down

<Front View>
Fig. M1-6

3) Adjust the Knob by moving up or down so that each of the pixels in the nine portions is clearly visible to obtain the best focus.
4) Tighten the Knob.

b. Mechanical Picture Position Adjustment (Tilt)

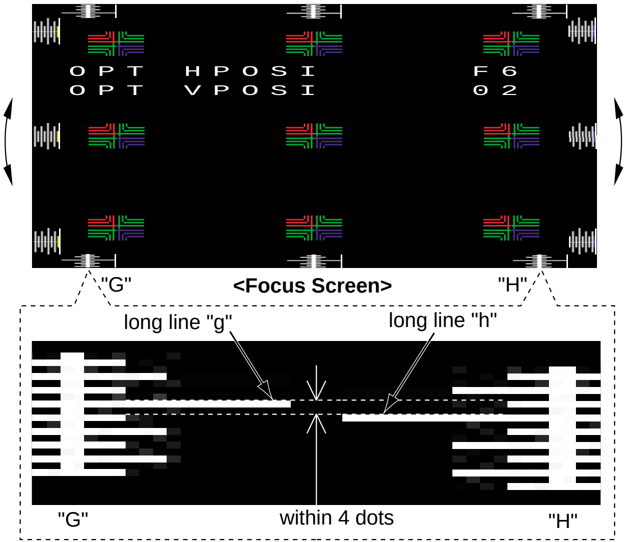
1) Loosen the 4 Screws on the Projection Unit.


Screw
Screw
Twist
Twist
Screw
Screw

<Front View>

Fig. M1-5

2) Adjust the Projection Lens by twisting so that the long line "g" and the long line "h" are within 4 dots. (The long line "g" and the long line "h" will be almost aligned horizontally.)


O P T
H P O S I
F 6
O P T
V P O S I
0 2
"G"
"H"
long line "g"
long line "h"
"G"
within 4 dots
"H"

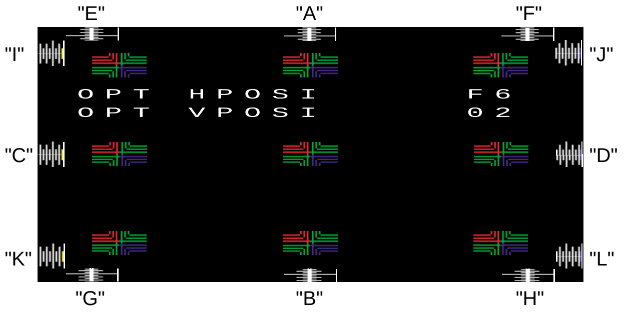
<Focus Screen>

Note:
If the Projection Lens is twisted left, the Focus Screen twists left.
If the Projection Lens is twisted right, the Focus Screen twists right.

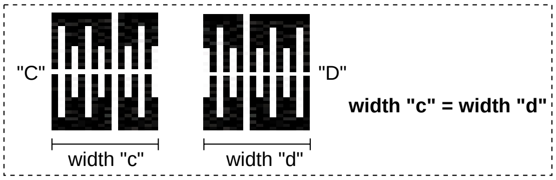
3) Tighten the 4 Screws while fixing the Projection Lens.

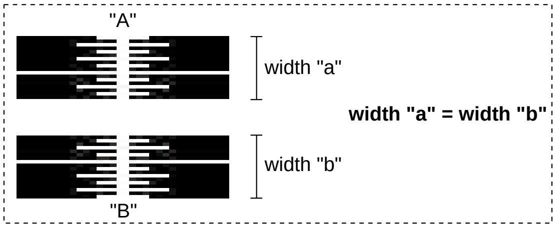
c. Electrical Picture Position Adjustment

1) Adjust OPT HPOSI so that "C" is symmetrical to "D." by pressing the VOLUME UP/DOWN key on the remote to change the value.
2) Press the CH UP/DOWN key on the remote to return to the OTHER menu.
3) Select OPT VPOSI by pressing CH UP/DOWN key on the remote.
4) Adjust OPT VPOSI so that "A" is symmetrical to "B" by pressing the VOLUME UP/DOWN key on the remote to change the value.


"E"
"A"
"F"
"I"
"J"
OPT HPOSI F6
OPT VPOSI 02
"C"
"D"
"K"
"L"
"G"
"B"
"H"

<Focus Screen>


"C"
"D"
width "c" = width "d"
width "c"
width "d"


"A"
width "a"
width "a" = width "b"
width "b"
"B"

5) Confirm that all "A", "B", "C", "D", "E", "F", "G", "H", "I", "J", "K", "L" are each almost symmetrical.
6) If not, adjust the "OPT HPOSI" and "OPT VPOSI" (repeat steps 1-6) until the picture is in the correct position.
7) Press the CH UP/DOWN key on the remote to return to the OTHER menu.

10.2. Adjustment Procedures 2

INITIAL GUIDELINE

The table below shows which adjustments are necessary according to the unit parts and individual parts to be replaced. Make sure to perform these adjustments shown below as necessary.

	Adjustment Item	Adjustment data is written to following EEPROM IC	Replacement Parts								
			Base Body Unit Projection Unit								
			LCD Drive P.C.B.	Optical Block Unit	LCD/Prism Unit	Light IN Polarizer R/G/B Unit	IC2302 (64k EEPROM)	IC2702 (FAN1 Drive)	IC2703 (FAN2 Drive)	IC2704 (FAN3 Drive)	*Projection Lens Unit is removed and installed
Mechanical (Projection Unit) Adjustment Section	Full Mirror Adjustment			○	△						△
	Polarizer Adjustment			○	△	○					△
LCD Drive P.C.B. Adjustment Section	Fan 1 Voltage Adjustment	IC2302 on LCD Drive P.C.B.					○	○			
	Fan 2 Voltage Adjustment	IC2302 on LCD Drive P.C.B.					○		○		
	Fan 3 Voltage Adjustment	IC2302 on LCD Drive P.C.B.					○			○	
	VCOM Adjustment	IC2302 on LCD Drive P.C.B.	○		○		○				
	White Balance Adjustment	IC2302 on LCD Drive P.C.B.	○	○	○		○				

Note: ○ : Adjustment Item

Note: △ : When replacing the LCD/Prism Unit, confirm the color uniformity on the screen. If OK, Full Mirror/Polarizer Adjustment are not needed. If NG, perform Full Mirror/Polarizer Adjustment.

Note: When replacing the Projection Unit or the Base Body Unit, any of above adjustment are not needed.

Fig. E1-1

Perform the necessary adjustments in numerical order in each section.

Section	Step No.	Adjustment Item	Necessary Equipment	Input	
Mechanical (Projection Unit) Adjustment Section	①	Full Mirror Adjustment	·Screwdriver (+)/(-) ·NTSC Video Pattern Generator	No signal or 100% White Signal or 100% White Internal pattern	(VIDEO 1) ---
	②	Polarizer Adjustment	·Screwdriver (+) ·PC(2) ·(NTSC Video Pattern Generator)	No signal or Test Pattern Signal ·Black Signal or Black Signal	(PC) or (VIDEO 1)
LCD Drive P.C.B. Adjustment Section	①	Fan 1 Voltage Adjustment	·PC(1) ·RS232C I/F Tool ·Digital Volt Meter ·Software(1)	---	---
	②	Fan 2 Voltage Adjustment	·PC(1) ·RS232C I/F Tool ·Digital Volt Meter ·Software(1)	---	---
	③	Fan 3 Voltage Adjustment	·PC(1) ·RS232C I/F Tool ·Digital Volt Meter ·Software(1)	---	---
	④	VCOM Adjustment	·PC(1) ·PC(2) with 720p video graphics card ·RS232C I/F Tool ·Software(1)	Test Pattern Signal ·70% Red Horizontal Signal ·70% Green Horizontal Signal ·70% Blue Horizontal Signal	PC
	⑤	White Balance Adjustment	·PC(1)/(2) ·RS232C I/F Tool ·Software(2) ·NTSC Video Pattern Generator ·Color Temperature Meter	Gray Scale Pattern Signal (10 scales) Test Pattern Signal ·Gray Scale Pattern Signal (16 scales) ·50% White Pattern Signal	VIDEO 1 or PC

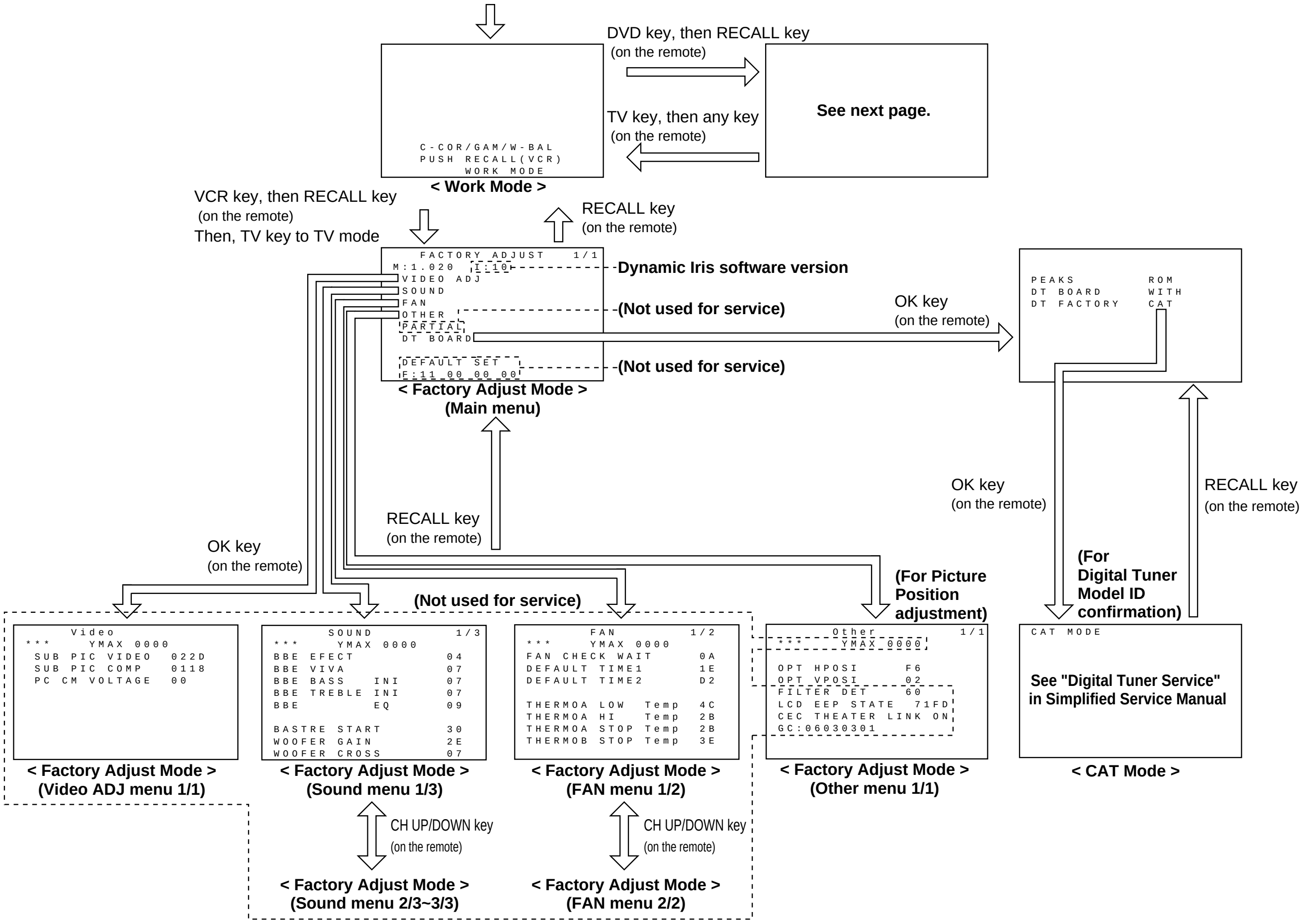
Note: The PC (1) must have a 10-key keyboard for LCD Drive Adjustment software (1).
The PC (2) is for Test Pattern Signal.

Fig. E1-2

WORK MODE AND FACTORY ADJUST MODE

Work Mode Map

Enter:
VOLUME DOWN button + RECALL key
(on the front) (on the remote)
(for more than 5 seconds in power on condition)


DVD key, then RECALL key
(on the remote)
TV key, then any key
(on the remote)
See next page.
C-COR/GAM/W-BAL
PUSH RECALL(VCR)
WORK MODE
< Work Mode >
VCR key, then RECALL key
(on the remote)
Then, TV key to TV mode
RECALL key
(on the remote)
FACTORY ADJUST 1/1
M:1.020 I:10
VIDEO ADJ
SOUND
FAN
OTHER
PARTIAL
DT BOARD
DEFAULT SET
F:11 00 00 00
Dynamic Iris software version
(Not used for service)
(Not used for service)
< Factory Adjust Mode >
(Main menu)
OK key
(on the remote)
PEAKS ROM
DT BOARD WITH
DT FACTORY CAT
OK key
(on the remote)
RECALL key
(on the remote)
RECALL key
(on the remote)
OK key
(on the remote)
(For Digital Tuner Model ID confirmation)
(For Picture Position adjustment)
(Not used for service)
Video
*** YMAX 0000
SUB PIC VIDEO 022D
SUB PIC COMP 0118
PC CM VOLTAGE 00
< Factory Adjust Mode >
(Video ADJ menu 1/1)
SOUND 1/3
*** YMAX 0000
BBE EFECT 04
BBE VIVA 07
BBE BASS INI 07
BBE TREBLE INI 07
BBE EQ 09
BASTRE START 30
WOOFER GAIN 2E
WOOFER CROSS 07
< Factory Adjust Mode >
(Sound menu 1/3)
FAN 1/2
*** YMAX 0000
FAN CHECK WAIT 0A
DEFAULT TIME1 1E
DEFAULT TIME2 D2
THERMOA LOW Temp 4C
THERMOA HI Temp 2B
THERMOA STOP Temp 2B
THERMOB STOP Temp 3E
< Factory Adjust Mode >
(FAN menu 1/2)
Other 1/1
*** YMAX 0000
OPT HPOSI F6
OPT VPOSI 02
FILTER DET 60
LCD EEP STATE 71FD
CEC THEATER LINK ON
GC:06030301
< Factory Adjust Mode >
(Other menu 1/1)
CAT MODE
See "Digital Tuner Service" in Simplified Service Manual
< CAT Mode >
CH UP/DOWN key
(on the remote)
CH UP/DOWN key
(on the remote)
< Factory Adjust Mode >
(Sound menu 2/3~3/3)
< Factory Adjust Mode >
(FAN menu 2/2)

Exit:
VOLUME DOWN button + RECALL key
(on the front) (on the remote)
(for more than 5 seconds in Work Mode)
Alternatively, Power OFF

Factory Adjust Mode

This mode is required when:

- Performing Mechanical Picture Position, Focus and Electrical Picture Position adjustment (Other menu).

To enter the Factory Adjust Mode:

1) In Work Mode, press the VCR key go to VCR mode, then the RECALL key for more than 1 second. The unit will go into Factory Adjust Mode. ("FACTORY ADJUST" will appear on the screen.)
2) Press the TV key to return to TV mode, then press CH UP/DOWN key to select and press the OK key to set the item to be adjusted.
3) **After completing adjustments, press RECALL key twice to return to Work Mode.**
   The adjustment data will be written to the EEPROM IC.

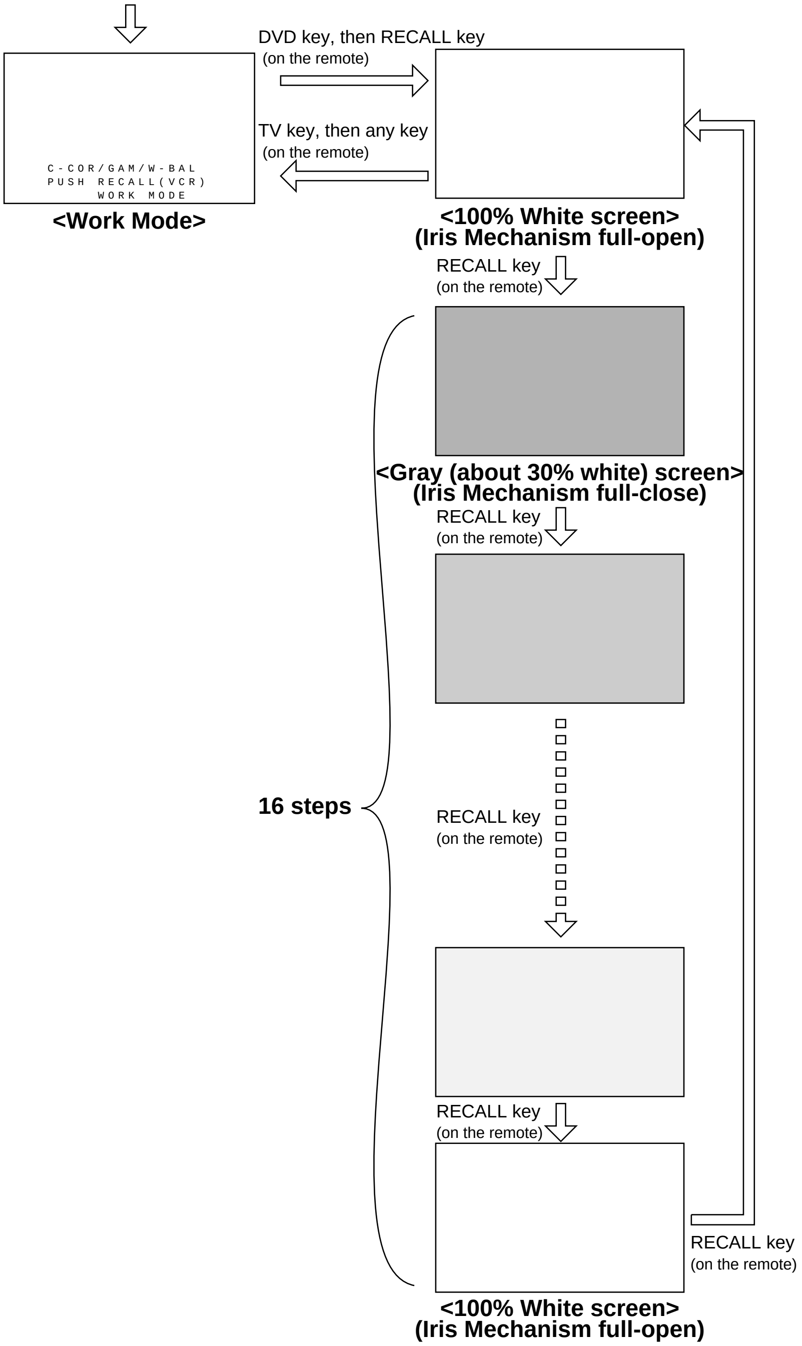
Note:

Do not unplug the AC Cord in Factory Adjust Mode or the adjustment data will not be written to the EEPROM IC.

IRIS CONFIRMATION

Work Mode Map (Iris Confirmation)

Enter:
VOLUME DOWN button + RECALL key
(on the front) (on the remote)
(for more than 5 seconds in power on condition)


DVD key, then RECALL key
(on the remote)
TV key, then any key
(on the remote)
C-COR/GAM/W-BAL
PUSH RECALL(VCR)
WORK MODE
<Work Mode>
<100% White screen>
(Iris Mechanism full-open)
RECALL key
(on the remote)
<Gray (about 30% white) screen>
(Iris Mechanism full-close)
RECALL key
(on the remote)
16 steps
RECALL key
(on the remote)
RECALL key
(on the remote)
RECALL key
(on the remote)
<100% White screen>
(Iris Mechanism full-open)

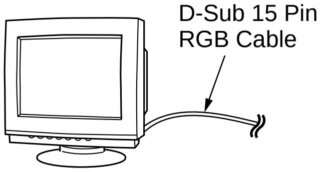
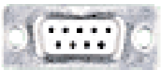
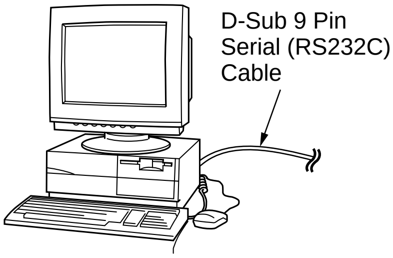
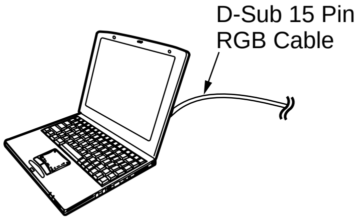
Note for Iris Confirmation

After replacing the Iris Unit or the Iris P.C.B., confirm that the screen becomes brighter every 16 steps by pressing the RECALL key using this mode. (Iris Mechanism opens every 16 steps.)

TEST EQUIPMENT

To do all of these electrical adjustments, the following equipment is required.

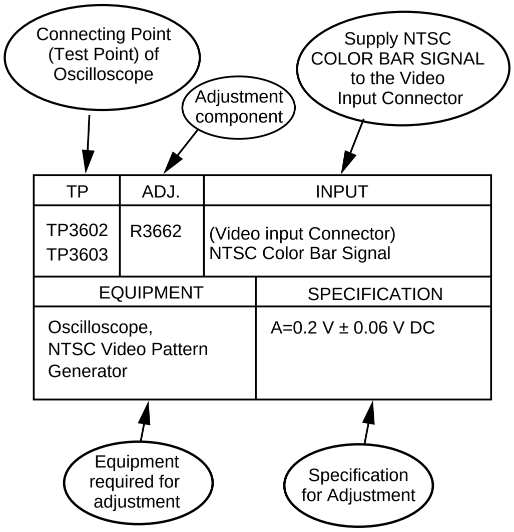
1. Dual-Trace Oscilloscope
   Voltage Range: 0.001 V to 50 V/Div.
   Frequency Range: DC to 50 MHz
   Probes: 10:1, 1:1
2. NTSC Video Pattern Generator
3. Plastic Tip Driver and Non-Metal Driver
4. (+) Screwdriver and (-) Screwdriver
5. DVM (Digital Volt Meter)
6. Color Temperature Meter
7. **PC REQUIREMENTS**
   The following PCs and Cables are required for Service Position. Prepare the following equipment locally.

PCs	Cables	Illustration	Specification
XGA Color PC Monitor for Main P.C.B. Adjustment	**D-Sub 15 Pin RGB Cable** for connecting the Monitor P.C.B. (LSEP3102A) male (For Monitor P.C.B. side)	 **Note:** PC (1) can be used for monitoring.	Monitor: 17 inch XGA (1,024 X 768) Color PC Monitor or higher
PC (1) for LCD Drive P.C.B. Adjustment	**D-Sub 9 Pin Serial (RS232C) Cable** for connecting the RS232C I/F Tool (LSUA0043)  female-female	 D-Sub 9 Pin Serial (RS232C) Cable **Note:** PC (1) must have a 10-key keyboard.	Type: Desk Top PC or with 10-key keyboard (Desk Top recommended) Monitor: 17 inch XGA (1,024 X 768) Color PC Monitor or higher OS: Windows® 95,98 or later Port: D-Sub 9 Pin Serial (RS232C)
PC (2) for Test Pattern Signal	**D-Sub 15 Pin RGB Cable** for connecting the PC Input Terminal male-male	 	Type: Notebook PC recommended OS: Windows® 95,98 or later Port: RGB output

8. Test Pattern Signal : testptnmmd2002.exe
9. Application Software for LCD Drive P.C.B. Adjustment

Application software	files		
Software (1): LCD Drive Adjustment	LCDDrv1.CAB LCDDrv4.CAB	LCDDrv2.CAB setup.exe	LCDDrv3.CAB SETUP.LST
Software (2): FFF_2006D	Vcom_2006.exe - - - - - (total 46 files)	BakPara.dat	DefPara.dat

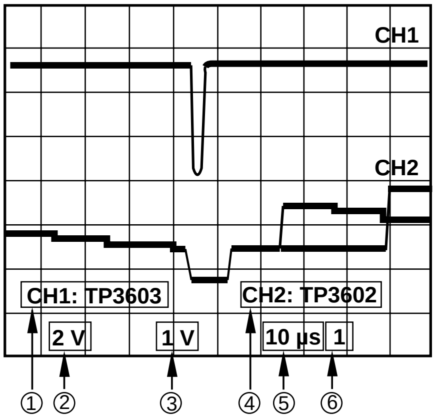
HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Oscilloscope
Adjustment component
Supply NTSC COLOR BAR SIGNAL to the Video Input Connector
Equipment required for adjustment
Specification for Adjustment

TP	ADJ.	INPUT
TP3602 TP3603	R3662	(Video input Connector) NTSC Color Bar Signal

EQUIPMENT	SPECIFICATION
Oscilloscope, NTSC Video Pattern Generator	A=0.2 V ± 0.06 V DC

Fig. E2-1



① Connecting Point
③ Volts/DIV (CH2)
⑤ Time/DIV

② Volts/DIV (CH1)
④ Connecting Point
⑥ Trigger Channel of the Scope
1 : CH1 2 : CH2

Fig. E2-2

INPUT TERMINAL INFORMATION

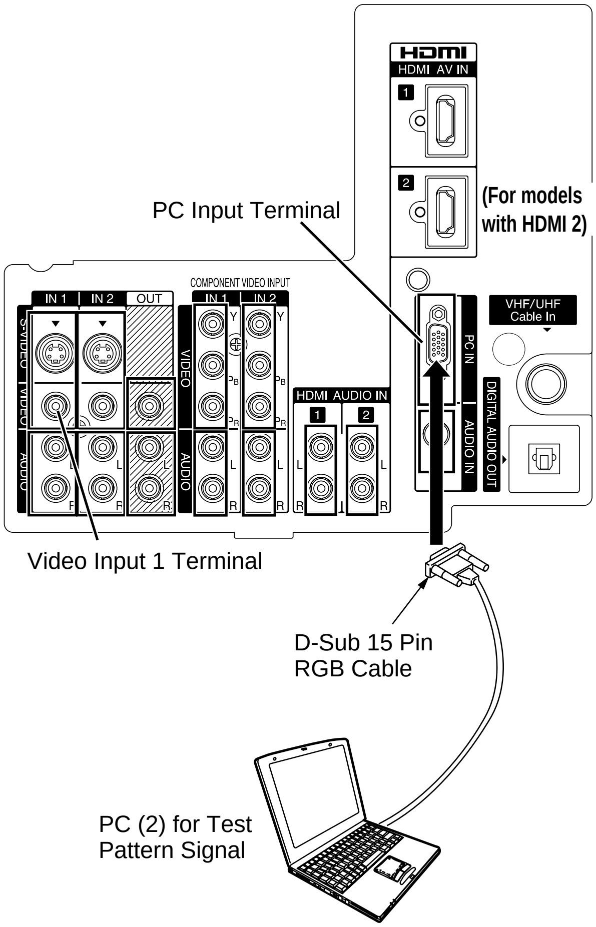

HDMI
HDMI AV IN
1
2
(For models with HDMI 2)
PC Input Terminal
COMPONENT VIDEO INPUT
IN 1
IN 2
OUT
S-VIDEO
VIDEO
AUDIO
Y
PB
PR
L
R
HDMI AUDIO IN
PC IN
AUDIO IN
DIGITAL AUDIO OUT
VHF/UHF Cable In
Video Input 1 Terminal
D-Sub 15 Pin RGB Cable
PC (2) for Test Pattern Signal

Fig. E2-3

MECHANICAL (PROJECTION UNIT) ADJUSTMENT SECTION

FULL MIRROR ADJUSTMENT

Purpose:
To set the Full Mirror in the proper position.

Symptom of Misadjustment:
The non-uniformity color will appear.

TP	ADJ.	INPUT
	Dichroic Mirror Green Full Mirror Red Full Mirror Blue	No signal input (White Screen is displayed.) **(SET UP 1)** or (VIDEO Input 1 Terminal or Internal Pattern) White Signal (100%) **(SET UP 2 or SET UP 3)**

EQUIPMENT	SPECIFICATION
NTSC Video Pattern Generator, Screwdriver (+) (-)	Refer to Description below

Note:
This adjustment should be done in a darkroom.

SET UP 1:
1. Place the unit into Service Position (2).
2. Set to a desired mode except TV mode by pressing TV/VIDEO key on the remote.
3. Turn off the unit power and unplug the AC Cord.
4. Disconnect the LCD Flat Panel connectors to be no signal input. Then, plug in the AC Cord and turn on the power.
   CAUTION:
   When disconnecting/reconnecting the LCD Flat Panel connectors, be sure to unplug the AC Cord.
5. Perform Full Mirror (Green, Red, and Blue) Adjustment as follows in order.

OR

SET UP 2:
1. Place the unit into Service Position (2).
2. Connect the NTSC Video Pattern Generator to the VIDEO Input 1 Terminal.
3. Supply 100 % White Signal and set to VIDEO 1 mode by pressing TV/VIDEO key on the remote.
4. Perform Full Mirror (Green, Red, and Blue) Adjustment as follows in order.

OR

SET UP 3:
1. Place the unit into Service Position (2).
2. With power on, press and hold the VOLUME DOWN button and the RECALL key on the remote for more than 5 seconds. "WORK MODE" will appear on the screen.
3. Press the DVD key to go to DVD mode, then the RECALL key on the remote for more than 1 second.
   "100% White" will appear from internal pattern.
   (The Iris Mechanism opens fully.)
4. Perform Full Mirror (Green, Red, and Blue) Adjustment as follows in order.

DICHROIC MIRROR GREEN ADJUSTMENT
1. Loosen 2 Screws (A) of the Mirror Holder of the Dichroic Mirror Green as they can be moved slightly.
2. Insert a Screwdriver (-) into Portion (a) and/or (a') and turn it to move the Mirror Holder of the Dichroic Mirror Green as indicated by the arrow. Stop moving at the point where there is no shadow around the screen.
   If there is shadow somewhere on the screen, repeat the above process.
   Then, tighten 2 Screws (A) securely (0.2-0.3 N•m).

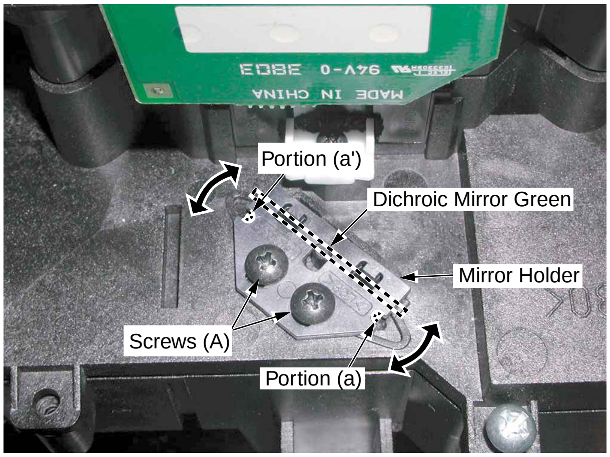
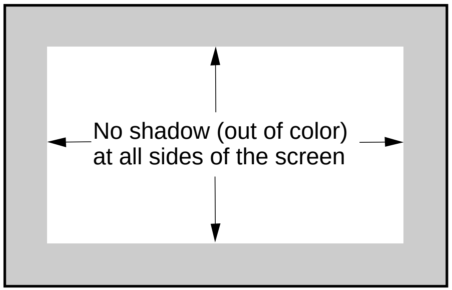


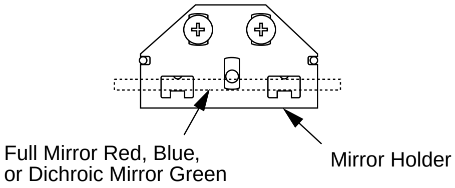
Fig. E3-1



<Screen>

Fig. E3-1a

Note for Mirror Holders:
After adjusting the Mirror Holders, confirm the Full Mirror Red, Blue, and the Dichroic Mirror Green in correct position as shown.



FULL MIRROR RED ADJUSTMENT

1. Loosen 2 Screws (B) of the Mirror Holder of the Full Mirror Red as they can be moved slightly.
2. Insert a Screwdriver (-) into Portion (b) and/or (b’) and turn it to move the Mirror Holder of the Full Mirror Red as indicated by the arrow. Stop moving at the point where there is no shadow around the screen.
   If there is shadow somewhere on the screen, repeat the above process.

   Then, tighten 2 Screws (B) securely (0.2-0.3 N•m).

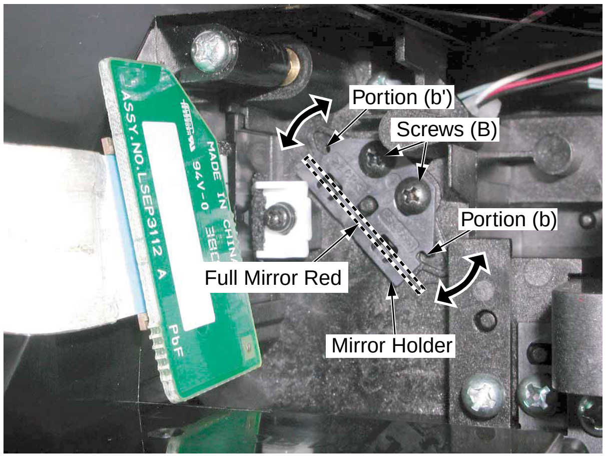
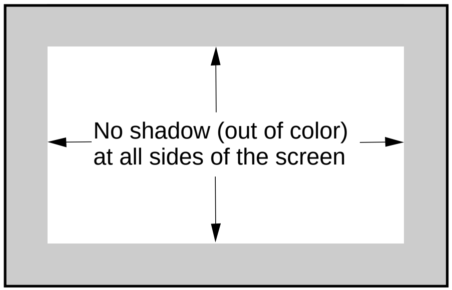

Portion (b')
Screws (B)
Portion (b)
Full Mirror Red
Mirror Holder

Fig. E3-2


No shadow (out of color)
at all sides of the screen

<Screen>

Fig. E3-2a

FULL MIRROR BLUE ADJUSTMENT

1. Loosen 2 Screws (C) of the Mirror Holder of the Full Mirror Blue as they can be moved slightly.
2. Insert a Screwdriver (-) into Portion (c) and/or (c’) and turn it to move the Mirror Holder of the Full Mirror Blue as indicated by the arrow. Stop moving at the point where there is no shadow around the screen.
   If there is shadow somewhere on the screen, repeat the above process.

   Then, tighten 2 Screws (C) securely (0.2-0.3 N•m).

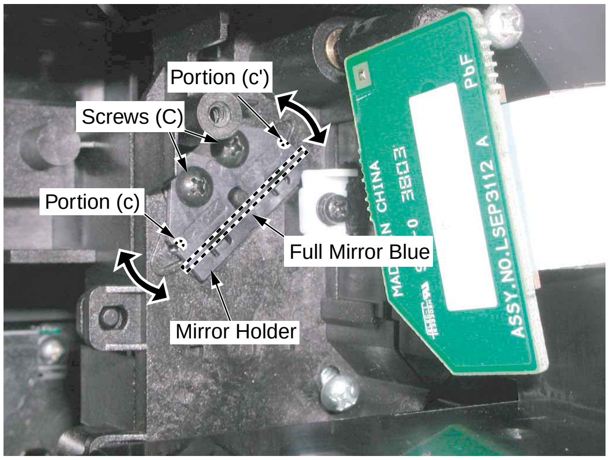
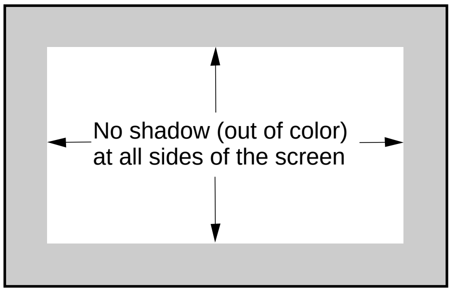

Portion (c')
Screws (C)
Portion (c)
Full Mirror Blue
Mirror Holder

Fig. E3-3


No shadow (out of color)
at all sides of the screen

<Screen>

Fig. E3-3a

POLARIZER ADJUSTMENT

Note:
Be sure to perform this adjustment after Full Mirror Adjustment are completed.

Purpose:
To set the polarizer in the proper position.

Symptom of Misadjustment:
The picture will become bluish or reddish or greenish.

TP	ADJ.	INPUT
	Light IN Polarizer Green Light IN Polarizer Red Light IN Polarizer Blue	No signal input (Black screen is displayed.) **(SET UP 1)** or (PC Input Terminal) Black Signal **(SET UP 2)** or (VIDEO Input 1 Terminal) Black Signal **(SET UP 3)**
EQUIPMENT		SPECIFICATION
Screwdriver (+), PC(2), Test Pattern Signal, (NTSC Video Pattern Generator)		Refer to Description below

Note:
This adjustment should be done in a darkroom.

Test Pattern Signal:
- Black Signal: "8 Black" in "1 Color"

SET UP 1:
1. Place the unit into Service Position (2).
2. Set to a desired mode except TV mode by pressing TV/VIDEO key on the remote.
3. No signal input.
4. Perform Light IN Polarizer (Green, Red and Blue) Adjustment as follows in order.

OR

SET UP 2:
1. Place the unit into Service Position (2).
2. Connect the PC (2) to the PC Input Terminal with the RGB cable.
3. Supply Black Signal and set to PC mode by pressing TV/VIDEO key on the remote.
4. Perform Light IN Polarizer (Green, Red and Blue) Adjustment as follows in order.

OR

SET UP 3:
1. Place the unit into Service Position (2).
2. Connect the NTSC Video Pattern Generator to the VIDEO Input 1 Terminal.
3. Supply Black Signal and set to VIDEO 1 mode by pressing TV/VIDEO key on the remote.
4. Perform Full Mirror (Green, Red, and Blue) Adjustment as follows in order.

Note:
Confirm that the picture will become black (not become bluish or reddish or greenish) after adjustment.

LIGHT IN POLARIZER GREEN ADJUSTMENT

1. Loosen a Screw (A) of the Light IN Polarizer Green Unit.
2. Move the Light IN Polarizer Green Unit to the right and left so that there is no green tint on the whole screen, and then tighten a Screw (A) (0.8-1.0 N•m).

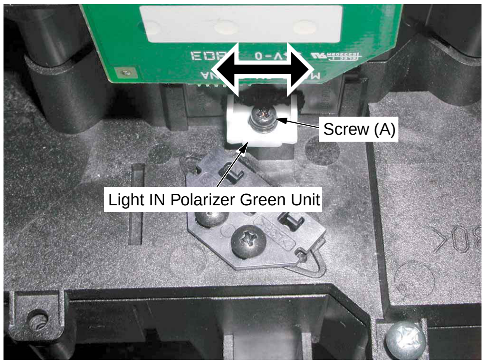


Fig. E4-1

LIGHT IN POLARIZER RED ADJUSTMENT

1. Loosen a Screw (B) of the Light IN Polarizer Red Unit.
2. Move the Light IN Polarizer Red Unit to the right and left so that there is no red tint on the whole screen, and then tighten a Screw (B) (0.8-1.0 N•m).

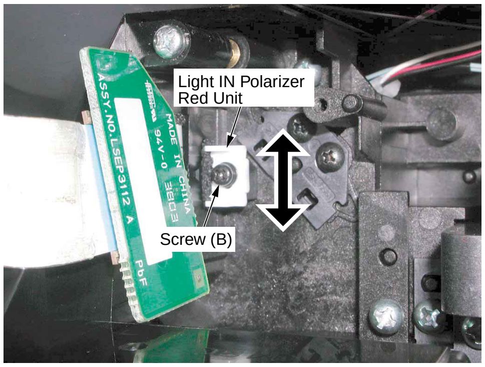


Fig. E4-2

LIGHT IN POLARIZER BLUE ADJUSTMENT

1. Loosen a Screw (C) of the Light IN Polarizer Blue Unit.
2. Move the Light IN Polarizer Blue Unit to the right and left so that there is no blue tint on the whole screen, and tighten a Screw (C) (0.8-1.0 N•m).

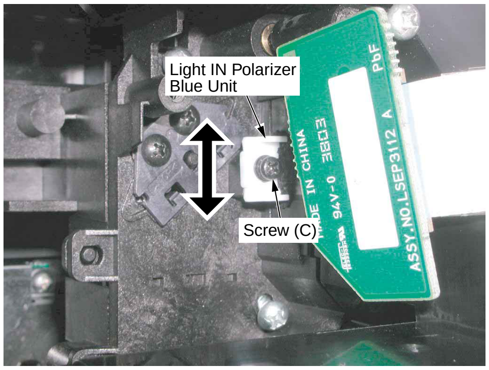


Fig. E4-3

LCD DRIVE P.C.B. ADJUSTMENT SECTION

SET UP for LCD Drive Adjustment software (Software (1)):

1. 1) Remove the Rear Cover Unit and open the power P.C.B./Power PCB Mount Metal.
   2) Connect the PC (1) and CN2303 on the LCD Drive P.C.B. with the RS232C I/F Tool and the D-Sub 9 Pin Serial (RS232C) Cable.

<With Power P.C.B./Power PCB Mount Metal opened>

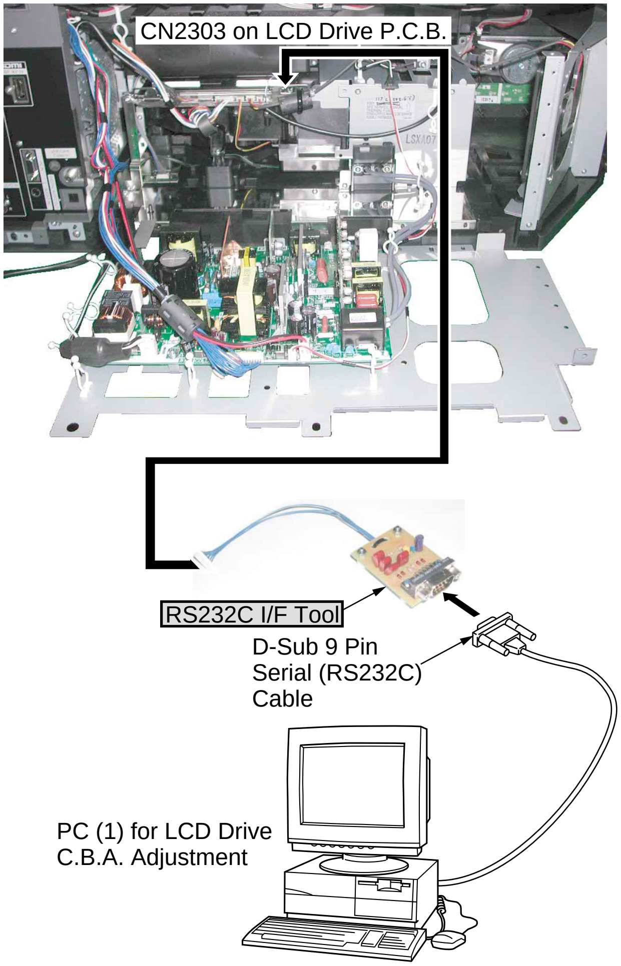
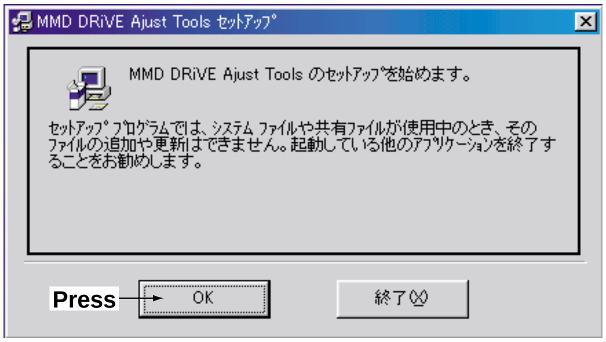

CN2303 on LCD Drive P.C.B.
RS232C I/F Tool
D-Sub 9 Pin Serial (RS232C) Cable
PC (1) for LCD Drive C.B.A. Adjustment

Fig. E5

2. Install the software (1) into the PC (1).
   Note:
   The PC (1) must have a 10-key keyboard.
   1) Copy the "LCD Drive Adjustment software (6 items)" folder to any drive.

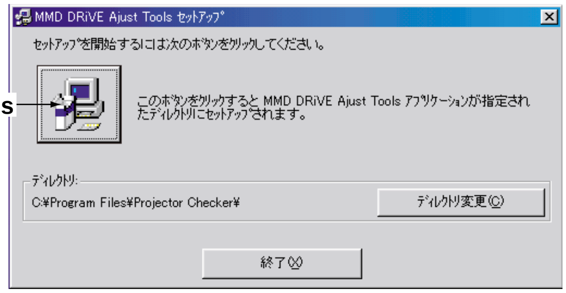
Application software	files
Software (1): LCD Drive Adjustment	LCDDrv1.CAB LCDDrv2.CAB LCDDrv3.CAB LCDDrv4.CAB setup.exe SETUP.LST

   2) Execute the "setup.exe" to install.
   3) Press the buttons in the following dialog boxes as shown.


MMD DRiVE Ajust Tools ｾｯﾄｱｯﾌﾟ

MMD DRiVE Ajust Tools のｾｯﾄｱｯﾌﾟを始めます。

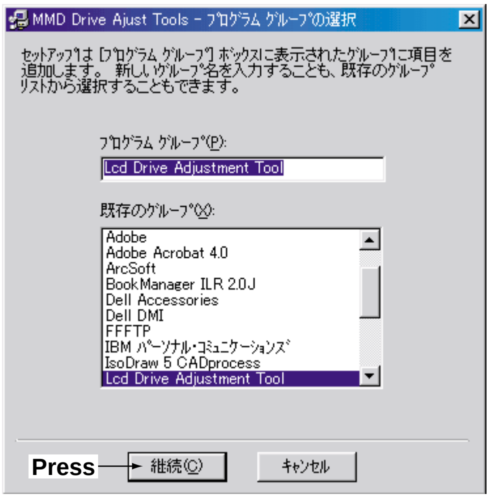
ｾｯﾄｱｯﾌﾟ ﾌﾟﾛｸﾞﾗﾑでは、ｼｽﾃﾑ ﾌｧｲﾙや共有ﾌｧｲﾙが使用中のとき、そのﾌｧｲﾙの追加や更新はできません。起動している他のｱﾌﾟﾘｹｰｼｮﾝを終了することをお勧めします。


MMD DRiVE Ajust Tools ｾｯﾄｱｯﾌﾟ

ｾｯﾄｱｯﾌﾟを開始するには次のﾎﾞﾀﾝをｸﾘｯｸしてください。

このﾎﾞﾀﾝをｸﾘｯｸすると MMD DRiVE Ajust Tools ｱﾌﾟﾘｹｰｼｮﾝが指定されたﾃﾞｨﾚｸﾄﾘにｾｯﾄｱｯﾌﾟされます。

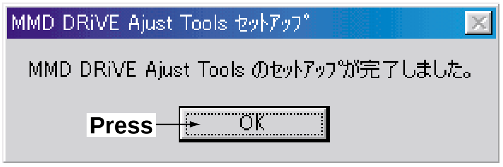
ﾃﾞｨﾚｸﾄﾘ: C:¥Program Files¥Projector Checker¥


MMD Drive Ajust Tools - ﾌﾟﾛｸﾞﾗﾑ ｸﾞﾙｰﾌﾟの選択

ｾｯﾄｱｯﾌﾟは [ﾌﾟﾛｸﾞﾗﾑ ｸﾞﾙｰﾌﾟ] ﾎﾞｯｸｽに表示されたｸﾞﾙｰﾌﾟに項目を追加します。 新しいｸﾞﾙｰﾌﾟ名を入力することも、既存のｸﾞﾙｰﾌﾟ ﾘｽﾄから選択することもできます。

ﾌﾟﾛｸﾞﾗﾑ ｸﾞﾙｰﾌﾟ(P): Lcd Drive Adjustment Tool

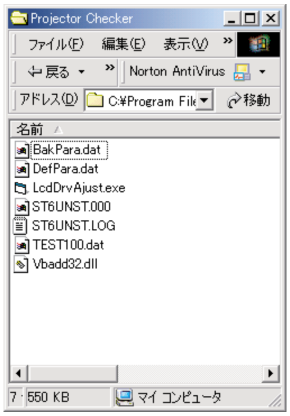
既存のｸﾞﾙｰﾌﾟ(X):
Adobe
Adobe Acrobat 4.0
ArcSoft
BookManager ILR 2.0J
Dell Accessories
Dell DMI
FFFTP
IBM ﾊﾟｰｿﾅﾙ･ｺﾐｭﾆｹｰｼｮﾝｽﾞ
IsoDraw 5 CADprocess
Lcd Drive Adjustment Tool


MMD DRiVE Ajust Tools セットアップ
OK

MMD DRiVE Ajust Tools のセットアップが完了しました。

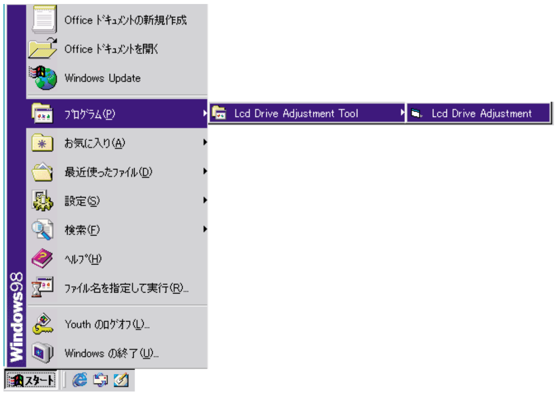
Press

4) The following files will be created on "C:\Program Files\Projector Checker." Software (1) installation is complete.

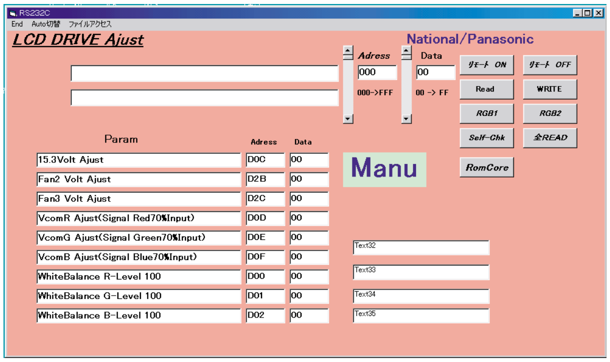

Projector Checker
ファイル(F)
編集(E)
表示(V)
戻る
Norton AntiVirus
アドレス(D)
C:¥Program File
移動
名前
7
550 KB
マイ コンピュータ

BakPara.dat
DefPara.dat
LcdDrvAjust.exe
ST6UNST.000
ST6UNST.LOG
TEST100.dat
Vbadd32.dll

3. Turn on the unit power.
4. To start up the software (1), select the "LCD Drive Adjustment" on Program in Start menu.
   The start-up menu will appear.


Office ドキュメントの新規作成
Office ドキュメントを開く
Windows Update
プログラム(P)
Lcd Drive Adjustment Tool
Lcd Drive Adjustment
お気に入り(A)
最近使ったファイル(D)
設定(S)
検索(F)
ヘルプ(H)
ファイル名を指定して実行(R)...
Youth のログオフ(L)...
Windows の終了(U)...
Windows98
スタート

5. To turn the remote on, press DEL key.

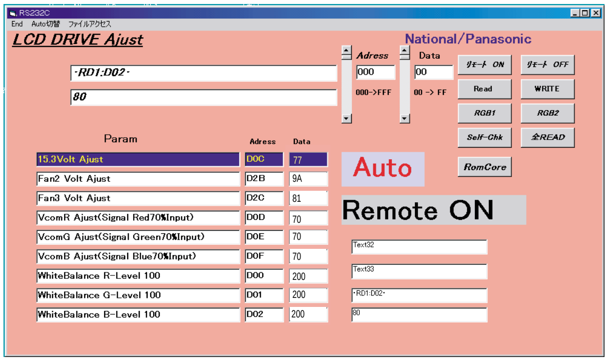

RS232C
End
Auto切替
ファイルアクセス
LCD DRIVE Ajust
National/Panasonic
リモート ON
リモート OFF
Read
WRITE
RGB1
RGB2
Self-Chk
全READ
RomCore
Manu

Adress: 000 (000->FFF)
Data: 00 (00 -> FF)

Param	Adress	Data
15.3Volt Ajust	D0C	00
Fan2 Volt Ajust	D2B	00
Fan3 Volt Ajust	D2C	00
VcomR Ajust(Signal Red70%Input)	D0D	00
VcomG Ajust(Signal Green70%Input)	D0E	00
VcomB Ajust(Signal Blue70%Input)	D0F	00
WhiteBalance R-Level 100	D00	00
WhiteBalance G-Level 100	D01	00
WhiteBalance B-Level 100	D02	00

Text32
Text33
Text34
Text35

6. "Manu" indication will change to "Auto" indication, and "Remote ON" indication will appear.
   Confirm NUMLOCK is on. If not, turn on NUMLOCK by pressing the NUMLOCK key on the 10-key keyboard.


RS232C
End
Auto切替
ファイルアクセス
LCD DRIVE Ajust
National/Panasonic
リモート ON
リモート OFF
Read
WRITE
RGB1
RGB2
Self-Chk
全READ
RomCore
Auto
Remote ON

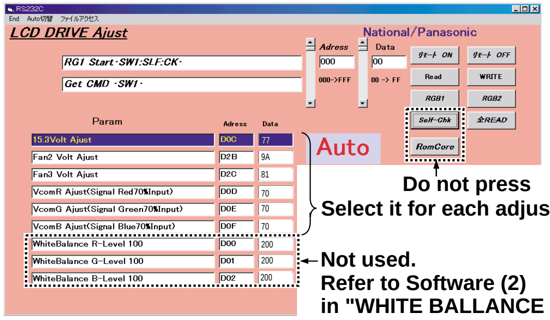
·RD1:D02·
80

Adress: 000 (000->FFF)
Data: 00 (00 -> FF)

Param	Adress	Data
15.3Volt Ajust	D0C	77
Fan2 Volt Ajust	D2B	9A
Fan3 Volt Ajust	D2C	81
VcomR Ajust(Signal Red70%Input)	D0D	70
VcomG Ajust(Signal Green70%Input)	D0E	70
VcomB Ajust(Signal Blue70%Input)	D0F	70
WhiteBalance R-Level 100	D00	200
WhiteBalance G-Level 100	D01	200
WhiteBalance B-Level 100	D02	200

Text32
Text33
·RD1:D02·
80

7. Perform the necessary adjustment for the LCD Drive P.C.B.


RS232C
End
Auto切替
ファイルアクセス
LCD DRIVE Ajust
National/Panasonic
リモート ON
リモート OFF
Read
WRITE
RGB1
RGB2
Self-Chk
全READ
RomCore
Auto

RG1 Start·SW1:SLF:CK·
Get CMD ·SW1·

Adress: 000 (000->FFF)
Data: 00 (00 -> FF)

Param	Adress	Data
15.3Volt Ajust	D0C	77
Fan2 Volt Ajust	D2B	9A
Fan3 Volt Ajust	D2C	81
VcomR Ajust(Signal Red70%Input)	D0D	70
VcomG Ajust(Signal Green70%Input)	D0E	70
VcomB Ajust(Signal Blue70%Input)	D0F	70
WhiteBalance R-Level 100	D00	200
WhiteBalance G-Level 100	D01	200
WhiteBalance B-Level 100	D02	200

Do not press

Select it for each adjustment

Not used.
Refer to Software (2)
in "WHITE BALLANCE
ADJUSTMENT"

8. After completing adjustments, turn the remote off by pressing DEL key. Then, close the software (1).

FAN 1 VOLTAGE ADJUSTMENT

Purpose:

To set the optimum rotation speed of the Fan 1.

Symptom of Misadjustment:

Temperature of the unit becomes too high or sound of the Fan 1 becomes loud.

TP	ADJ.	INPUT
CN2701 (Pin 1) or TP2742	15.3Volt Adjust	

EQUIPMENT	SPECIFICATION
PC(1), DVM (Digital Volt Meter)	+7.0 VDC±0.1 VDC

1. Connect the DVM (Digital Volt Meter) to CN2701 (Pin 1) on the LCD Drive P.C.B. after disconnecting the Connector Cable from Connector CN2701.
2. Select "15.3Volt Adjust" on menu by 2(↓), 8(↑) key on the 10-key keyboard.
3. Adjust "15.3Volt Adjust" by pressing 4(←), 6(→) key on the 10-key keyboard so that the voltage becomes +7.0 VDC±0.1 VDC.

FAN 2 VOLTAGE ADJUSTMENT

Purpose:

To set the optimum rotation speed of the Fan 2.

Symptom of Misadjustment:

Temperature of the unit becomes too high or sound of the Fan 2 becomes loud.

TP	ADJ.	INPUT
CN2702 (Pin 1) or TP2743	Fan2 Volt Adjust	

EQUIPMENT	SPECIFICATION
PC(1), DVM (Digital Volt Meter)	+8.0 VDC±0.05 VDC

1. Connect the DVM (Digital Volt Meter) to CN2702 (Pin 1) on the LCD Drive P.C.B. after disconnecting the Connector Cable from Connector CN2702.
2. Select "Fan2 Volt Adjust" on menu by 2(↓), 8(↑) key on the 10-key keyboard.
3. Adjust "Fan2 Volt Adjust" by pressing 4(←), 6(→) key on the 10-key keyboard so that the voltage becomes +8.0 VDC±0.05 VDC.

FAN 3 VOLTAGE ADJUSTMENT

Purpose:

To set the optimum rotation speed of the Fan 3.

Symptom of Misadjustment:

Temperature of the unit becomes too high or sound of the Fan 3 becomes loud.

TP	ADJ.	INPUT
CN2703 (Pin 1) or TP2744	Fan3 Volt Adjust	

EQUIPMENT	SPECIFICATION
PC(1), DVM (Digital Volt Meter)	+7.0 VDC±0.05 VDC

1. Connect the DVM (Digital Volt Meter) to CN2703 (Pin 1) on the LCD Drive P.C.B. after disconnecting the Connector Cable from Connector CN2703.
2. Select "Fan3 Volt Adjust" on menu by 2(↓), 8(↑) key on the 10-key keyboard.
3. Adjust "Fan3 Volt Adjust" by pressing 4(←), 6(→) key on the 10-key keyboard so that the voltage becomes +7.0 VDC±0.05 VDC.

VCOM ADJUSTMENT

Purpose:

To set the optimum LCD common voltage.

Symptom of Misadjustment:

The picture will be flickering.

TP	ADJ.	INPUT
	Vcom R Adjust	(PC Input Terminal) 70 % Red Horizontal Signal
	Vcom G Adjust	(PC Input Terminal) 70 % Green Horizontal Signal
	Vcom B Adjust	(PC Input Terminal) 70 % Blue Horizontal Signal

EQUIPMENT	SPECIFICATION
PC(1)/(2), Test Pattern Signal or PC(1) with 720p video graphics card	Refer to Description below

CAUTION:

This method is for use with PC which has a 720p video graphics card to output the Test Pattern Signal.

Test Pattern Signal:

- 70 % Red Horizontal Signal: "2 Red 70 %" in "2 Horizontal" of "3 Phase"
- 70 % Green Horizontal Signal: "3 Green 70 %" in "2 Horizontal" of "3 Phase"
- 70 % Blue Horizontal Signal: "4 Blue 70 %" in "2 Horizontal" of "3 Phase"

SET UP:

1. Connect the PC(2) to the PC Input Terminal with the RGB Cable.
2. Set to PC mode by pressing TV/VIDEO key on the remote.
3. Supply 70% Red Horizontal signal. (PC (2) output should be **720p resolution** (**1280 x 720**).)
   Note:
   A Desk Top PC with a video graphics card compatible with 720p resolution must be used.
4. Set to "Dynamic Iris Off" of Adv. adjust in Picture Menu. (Or, disconnect Connector CN9502 on the Iris P.C.B.)

PROCEDURES:

1. Select "Vcom R Adjust" in software (1) menu by 2(↓), 8(↑) key on the 10-key keyboard.
2. Adjust "Vcom R Adjust" by pressing 4(←), 6(→) key on the 10-key keyboard so that there are no flicker on the whole screen.
3. Supply 70% Green Horizontal signal.
4. Then, select "Vcom G Adjust" in software (1) menu.
5. Adjust "Vcom G Adjust" by pressing 4(←), 6(→) key on the 10-key keyboard so that the flicker on the whole screen becomes minimum and uniformity.
6. Supply 70% Blue Horizontal signal.
7. Then, select "Vcom B Adjust" in software (1) menu.
8. Adjust "Vcom B Adjust" by pressing 4(←), 6(→) key on the 10-key keyboard so that the flicker on the whole screen becomes minimum and uniformity.
9. Then, end the software (1).

WHITE BALANCE ADJUSTMENT

Note:

1. Be sure to perform the White Balance Adjustment after the power has been on for more than 10 minutes so that color temperature is stable.
2. This adjustment should be done in a darkroom.

Purpose:

To set the standard white level for each color temperature.

Symptom of Misadjustment:

The white color of picture will become bluish or reddish.

TP	ADJ.	INPUT
	Hi Data Lo Dada	(PC Input Terminal) Gray Scale Pattern Signal (16 scales) or (VIDEO Input 1 Terminal) Gray Scale Pattern Signal (10 scales)

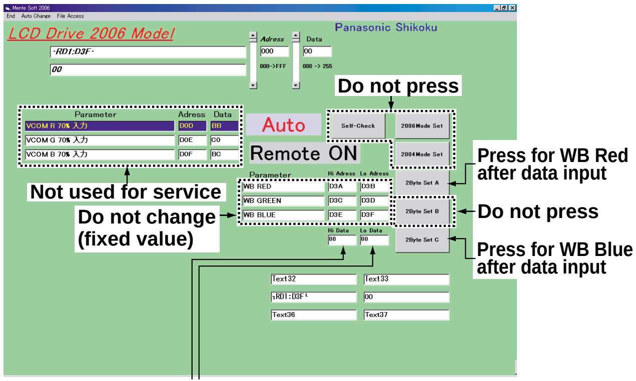
EQUIPMENT	SPECIFICATION
PC(1)/(2), Test Pattern Signal, NTSC Video Pattern Generator	Refer to Description below

Test Pattern Signal:

- Gray Scale Pattern Signal (16 scales): "1 White 16 grade (Horiz)" in "Bar Reverse"

SET UP for LCD Drive Adjustment software (Software (2)):

1) Copy the "FFF_2006D" folder to any drive on the PC (1).
2) Execute the "Vcom_2006.exe."
3) To turn the remote on, press DEL key.
4) "Manu" indication will change to "Auto" indication, and "Remote ON" indication will appear.


Mente Soft 2006
End
Auto Change
File Access
LCD Drive 2006 Model
Panasonic Shikoku
Adress
Data
000->FFF
000 -> 255
Do not press
Auto
Remote ON
Self-Check
2006Mode Set
2004Mode Set
2Byte Set A
2Byte Set B
2Byte Set C
Press for WB Red after data input
Do not press
Press for WB Blue after data input
Not used for service
Do not change (fixed value)

-RD1:D3F-

00

Adress: 000 Data: 00

Parameter	Adress	Data
VCOM R 70% 入力	D0D	BB
VCOM G 70% 入力	D0E	C0
VCOM B 70% 入力	D0F	BC

Parameter	Hi Adress	Lo Adress
WB RED	D3A	D3B
WB GREEN	D3C	D3D
WB BLUE	D3E	D3F

Hi Data: 00 Lo Data: 00

Text32	Text33
┐RD1:D3F└	00
Text36	Text37

Input data for WB adjustment

	Hi Data	Lo Data
Default	02	00
Range	00 ~ 03	00 ~ FF

5) After completing WB Adjustment, turn the remote off by pressing DEL key. Then, close the software (2).

Rough Adjustment:

(Rough adjustment by PC signal : Determined visually)

1. Connect the PC(2) to the PC Input Terminal with the RGB Cable.
2. Set to PC mode by pressing TV/VIDEO key on the remote.
3. Set to "Dynamic Iris Off" of Adv. adjust in Picture Menu. (Or, disconnect Connector CN9502 on the Iris P.C.B.)
4. Supply Gray Scale Pattern Signal (16 scales) from PC(2).
5. Select "Hi Data" on menu with mouse, input a 2-byte value (00~03) to "Hi Data."
6. Select "Lo Data" on menu with mouse, input a 2-byte value (00~FF) to "Lo Data."
   Note for inputting data:
   When inputting "Hi Data" and "Lo Data"data, it is recommended to adjust by increasing or decreasing from the Default value (Hi Data: 02, Lo Data: 00).
7. Then, press "2Byte Set A" or "2Byte Set C" to transmit the White Balance Red data or Blue data.
8. Repeating above steps 5~7, adjust White Balance Red and Blue so that the area around the 14th and 16th scale (A) becomes pure gray with no red or blue tint.

Gray Scale Pattern Signal (16 scales)

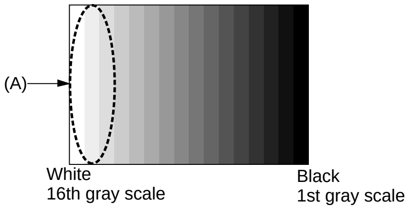

(A)
White
16th gray scale
Black
1st gray scale

Fig. E6-1

Note:

Adjust viewing in scale (A) although, the white color of the entire screen changes.

(Rough adjustment by video signal : Determined visually)

1. Connect the NTSC Video Pattern Generator to the VIDEO Input 1 Terminal.
2. Set to VIDEO 1 mode by pressing TV/VIDEO key on the remote.
3. Set to "Dynamic Iris Off" of Adv. adjust in Picture Menu. (Or, disconnect Connector CN9502 on the Iris P.C.B.)
4. Supply Gray Scale Pattern Signal (10 scales).
5. Select "Hi Data" on menu with mouse, input a 2-byte value (00~03) to "Hi Data."
6. Select "Lo Data" on menu with mouse, input a 2-byte value (00~FF) to "Lo Data."
   Note for inputting data:
   When inputting "Hi Data" and "Lo Data"data, it is recommended to adjust by increasing or decreasing from the Default value (Hi Data: 02, Lo Data: 00).
7. Then, press "2Byte Set A" or "2Byte Set C" to transmit the White Balance Red data or Blue data.
8. Repeating above steps 5~7, adjust White Balance Red and Blue so that the area around the 14th and 16th scale (A) becomes pure gray with no red or blue tint.

Gray Scale Pattern Signal (10 scales)

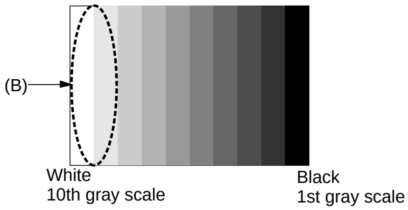

(B)
White
10th gray scale
Black
1st gray scale

Fig. E6-2

Note:

Adjust it with viewing in scale(B) though, the white color of whole screen changes.

Fine Adjustment:

TP	ADJ.	INPUT
	Hi Data Lo Data	(PC Input Terminal) 50 % White Pattern Signal 100 % White Pattern Signal

EQUIPMENT	SPECIFICATION
PC(1)/(2), Test Pattern Signal, Color Temperature Meter	Refer to Description below

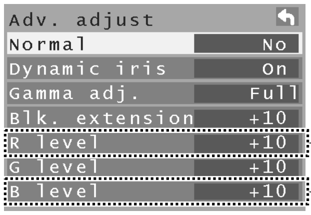
Test Pattern Signal:
- 50 % White Pattern Signal: "9 Gray" in "1 Color"
- 100 % White Pattern Signal: "1 White" in "1 Color"

1. Connect the PC(2) to the PC Input Terminal with the RGB Cable.
2. Set to PC mode by pressing TV/VIDEO key on the remote.
3. Set to "Dynamic Iris Off" of Adv. adjust in Picture Menu. (Or, disconnect Connector CN9502 on the Iris P.C.B.)
4. Supply 50 % White Pattern Signal from PC(2).
5. Select "Hi Data" on menu with mouse, input a 2-byte value (00~03) to "Hi Data."
6. Select "Lo Data" on menu with mouse, input a 2-byte value (00~FF) to "Lo Data."
7. Then, press "2Byte Set A" or "2Byte Set C" to transmit the White Balance Red data or Blue data.
8. Repeating above steps 5 ~ 7, adjust White Balance Red and Blue so that the color temperature (K) and its deviation (uv) in the center of the screen are 9600 K to 11800 K, and -0.018 uv to -0.002 uv respectively using a Color Temperature Meter.
9. Supply 100 % White Pattern Signal from PC(2).
10. Confirm that the color temperature (K) and its deviation (uv) in the center of the screen are 8100 K to 13800 K, and -0.011 uv to +0.007 uv respectively using a Color Temperature Meter.
11. If OK, close the software (2).
    If NG, repeat steps 4 through 10 until color temperature (K) and its deviation (uv) are within specification.

ALTERNATIVE METHOD FOR WHITE BALANCE ADJUSTMENT

1. Press MENU key in normal condition.
2. Press CH UP/DOWN key and select "Picture."
   Then, press OK key.
3. Press CH UP/DOWN key and select "Adv. adjust"
   Then, press OK key.
4. Adjust "R level" and "B level".

Note:
This adjustment data will be written to EEPROM on the Main P.C.B.



Adv. adjust

Normal	No
Dynamic iris	On
Gamma adj.	Full
Blk. extension	+10
R level	+10
G level	+10
B level	+10

Adjust the red component.

Adjust the blue component.

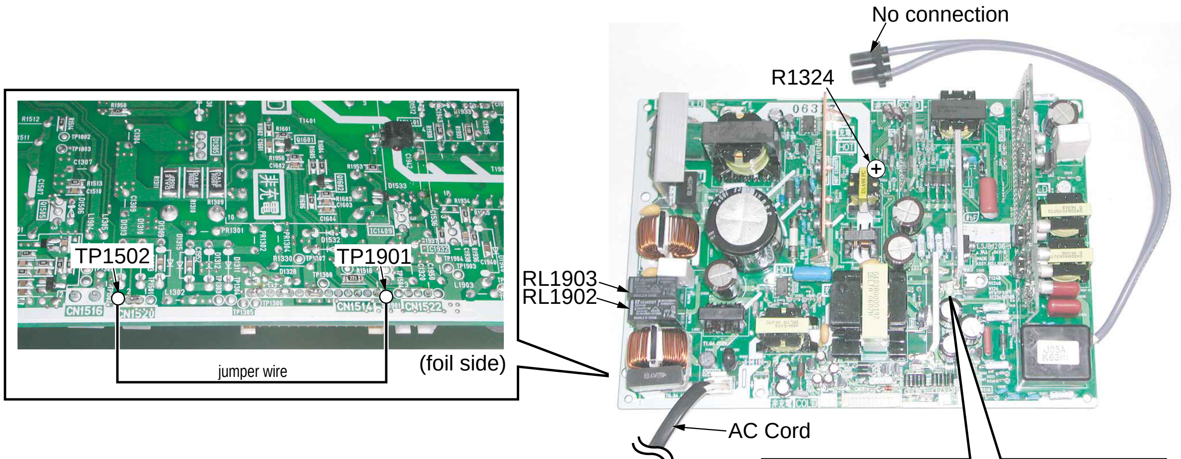
POWER ADJUSTMENT

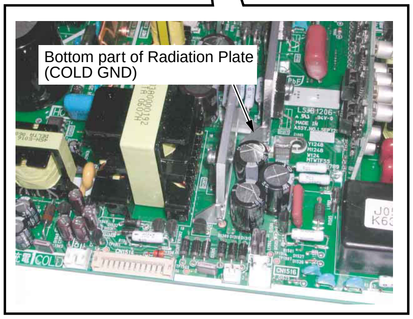
REG9V Adjustment

After replacing the Power Control 1 P.C.B., perform this adjustment.

PROCEDURES:

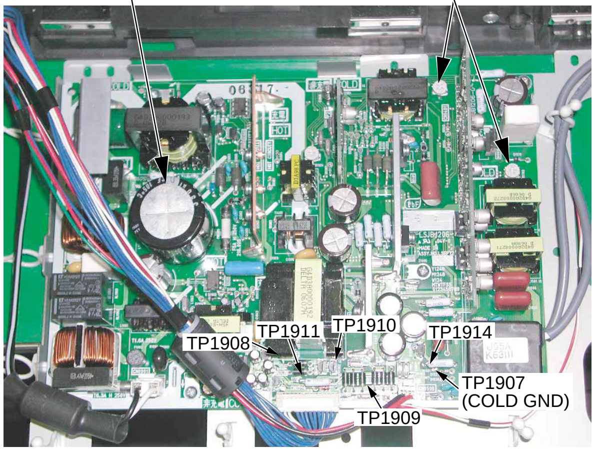
1. Disconnect all connector cables on the Power P.C.B., then take out the Power P.C.B. from the unit.
2. Solder a jumper between TP1502 and TP1901 on the Power P.C.B.
3. Plug in the AC Cord.
4. Connect the DVM (Digital Volt Meter) to TP1909 on the Power P.C.B.
   (Use TP1907 or bottom part of Radiation Plate for COLD circuit as GND.)
5. Adjust R1324 so that the voltage is 9.0 V ± 0.2 V.
6. Unplug the AC Cord. Remove the jumber wire between TP1502 and TP1901 on the Power P.C.B.
7. Reassembly the Power P.C.B. by connecting all connector cables, leave the Power P.C.B./Power Support Angle open.
8. Plug in the AC Cord and turn on the unit power.
9. Check the voltage at the following points.
   (Use TP1907 or bottom part of Radiation Plate for COLD circuit as GND.)
   TP1908: approx. 7.0 V ± 0.5 V (STBY+7V)
   TP1909: approx. 9.0 V ± 0.5 V (REG+9V)
   TP1910: approx. 31.0 V ± 1.0 V (DT+30V)
   TP1911: approx. 17.0 V ± 0.5 V (DRV+17V)
   TP1914: approx. 17.0 V ~ 22.0 V (AMP+18V)
10. If NG, re-adjust. Perform steps 1 ~ 9.


No connection
R1324
TP1502
TP1901
jumper wire
(foil side)
RL1903
RL1902
AC Cord
To AC outlet


Bottom part of Radiation Plate
(COLD GND)

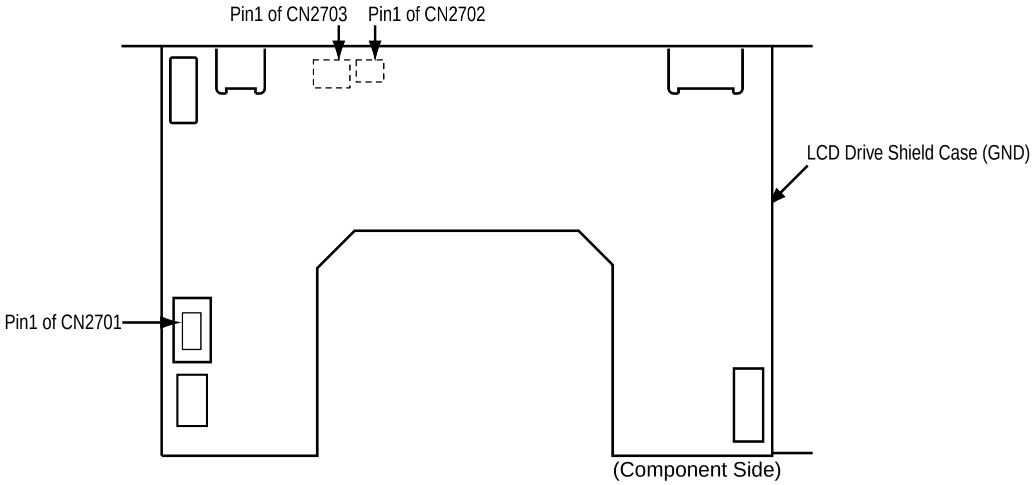
C1810:
High voltage generated.
(approx. 400 V)

Note:
Do not turn or adjust VRs
(R1703, R1951).

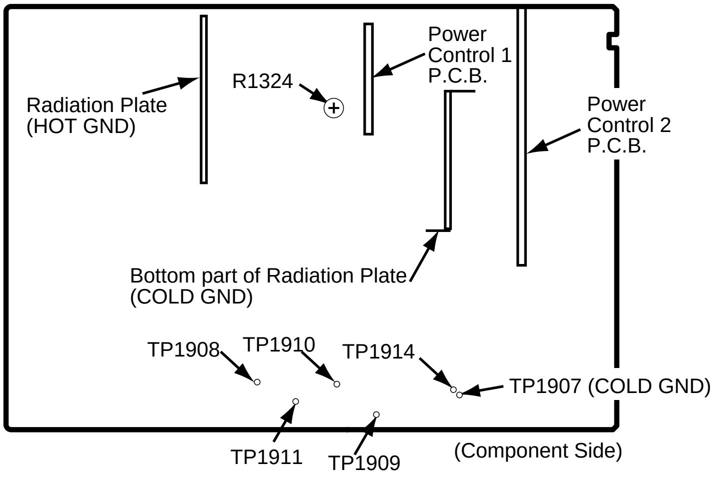

TP1908
TP1911
TP1910
TP1914
TP1907
(COLD GND)
TP1909

TEST POINTS AND LOCATION

LCD Drive P.C.B.


Pin1 of CN2703
Pin1 of CN2702
LCD Drive Shield Case (GND)
Pin1 of CN2701
(Component Side)

Power P.C.B.


Power
Control 1
P.C.B.
R1324
Radiation Plate
(HOT GND)
Power
Control 2
P.C.B.
Bottom part of Radiation Plate
(COLD GND)
TP1908
TP1910
TP1914
TP1907 (COLD GND)
TP1911
TP1909
(Component Side)

Test Point Information

● Test Point with a Test Pin.
⦶ Test Point with a jumper wire across a hole in the P.C.B.
○ Test Point with no Test Pin.
▭ Test Point with a Hook.

11 Maintenance

11.1. Cleaning Methods

THE SCREEN UNIT AND THE MIRROR

- THE SCREEN UNIT (Lenticular Screen, Fresnel Lens)

It is strongly recommended that the Lenticular Screen surface (outside) and the Fresnel Lens surface (inside) should be wiped gently with a clean, soft, dry cloth to remove the dirt.

Note:

1. If the dirt cannot be removed by wiping with a clean, soft, dry cloth, use a clean, soft, dry cloth moistened with diluted neutral pH liquid cleanser or a lens cleaner (usually containing a small amount of ethyl alcohol) and wipe lightly. Take care not to leave any streaks.
   Do not use cleaning materials containing methyl alcohol, acetone, or dichloromethane.
2. Use an air blower to clean the inner surface of the Lenticular Screen and the outer surface of the Fresnel Lens (the surfaces that one another). These surfaces must not be wiped with a cloth.

- THE MIRROR

Remove any dirt with an air blower or wipe with a clean, soft, dry cloth. If wiped too forcefully, the surface of the Mirror can be damaged. If wiping with a clean, dry cloth does not remove the dirt, the Mirror must be replaced.

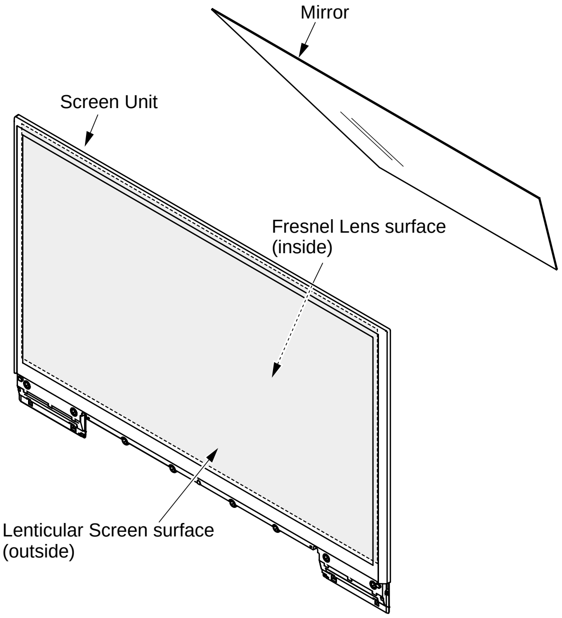

Mirror
Screen Unit
Fresnel Lens surface (inside)
Lenticular Screen surface (outside)

Fig. 6-1

THE LAMP

Gently wipe the surface of the glass of the Lamp with cleaning paper or soft cloth.

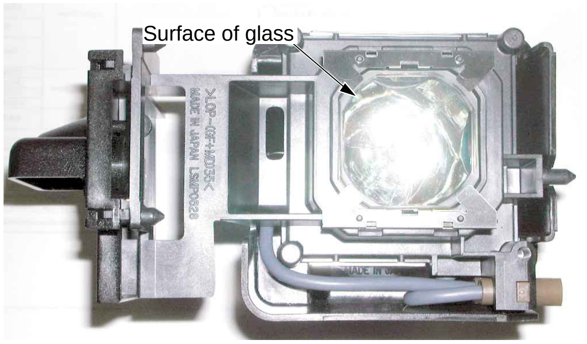


Fig. 6-2

THE FILTER ON THE PROJECTION UNIT

CAUTION:

Operating with torn or damaged Air Filter may cause damage to the Projection unit.
Remove the Projection Unit from rear. Then, clean the filters on the Projection Unit. Gently remove any accumulated dust from filter with a vacuum cleaner; use extreme care so as not to damage or tear the filters.

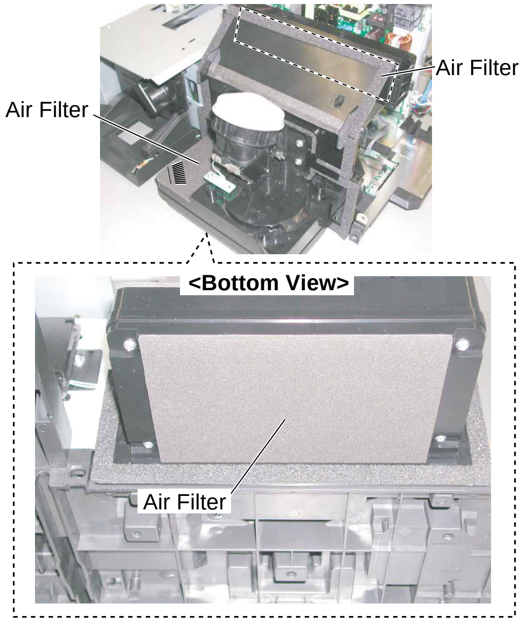


Fig. 6-3

THE PROJECTION LENS

Use lens cleaning paper and cleaner available at your local camera shop, etc. Dampen the cleaning paper with cleaner and gently wipe the surface of the lens from the center outward to remove dust.

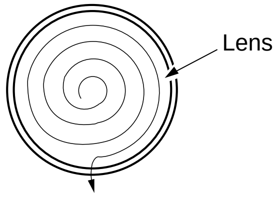


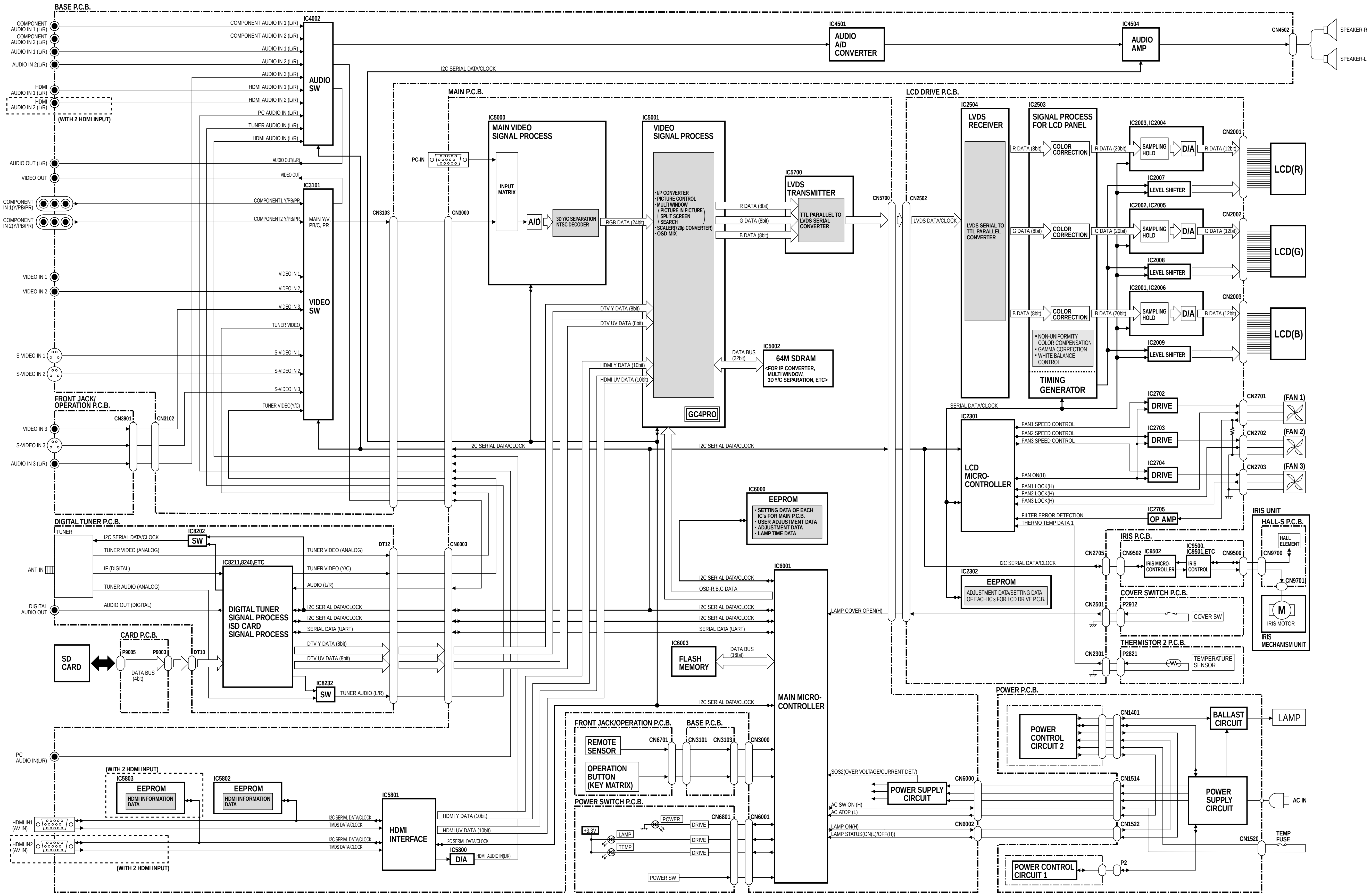
Fig. 6-4

THE LCD PANEL OF THE LCD/PRISM UNIT

1) Clean the surface of the LCD Panel of the LCD/Prism Unit with an air blower or wipe with a clean, or soft blush lightly.
2) If any dirt remains, lightly wipe the surface with a cotton swab moistened with pure ethyl alcohol or a lens cleaner which contains no water or oil. Use a new swab after each wiping so that dirt will not be re-deposited on the surface.

12 Block Diagrams

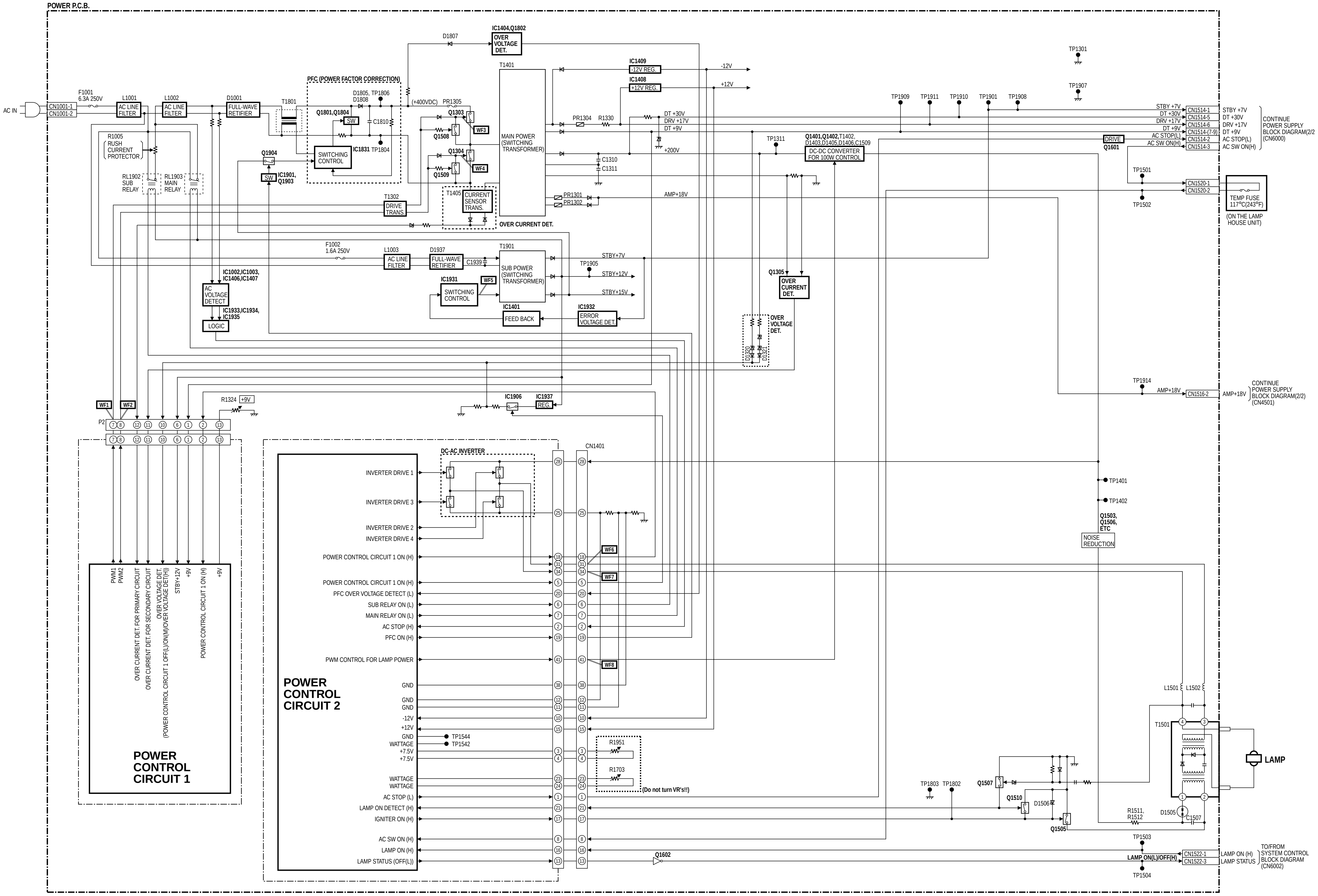
OVERALL BLOCK DIAGRAM


BASE P.C.B.
COMPONENT AUDIO IN 1 (L/R)
COMPONENT AUDIO IN 2 (L/R)
AUDIO IN 1 (L/R)
AUDIO IN 2(L/R)
HDMI AUDIO IN 1 (L/R)
HDMI AUDIO IN 2 (L/R)
(WITH 2 HDMI INPUT)
AUDIO IN 3 (L/R)
HDMI AUDIO IN 1 (L/R)
HDMI AUDIO IN 2 (L/R)
PC AUDIO IN (L/R)
TUNER AUDIO IN (L/R)
HDMI AUDIO IN (L/R)
IC4002
AUDIO SW
AUDIO OUT (L/R)
VIDEO OUT
AUDIO OUT(L/R)
IC3101
COMPONENT IN 1(Y/PB/PR)
COMPONENT IN 2(Y/PB/PR)
COMPONENT1 Y/PB/PR
COMPONENT2 Y/PB/PR
MAIN Y/V, PB/C, PR
VIDEO IN 1
VIDEO IN 2
VIDEO IN 3
TUNER VIDEO
VIDEO SW
S-VIDEO IN 1
S-VIDEO IN 2
S-VIDEO IN 3
TUNER VIDEO(Y/C)
FRONT JACK/ OPERATION P.C.B.
CN3901
CN3102
IC4501
AUDIO A/D CONVERTER
IC4504
AUDIO AMP
CN4502
SPEAKER-R
SPEAKER-L
I2C SERIAL DATA/CLOCK
MAIN P.C.B.
PC-IN
CN3103
CN3000
IC5000
MAIN VIDEO SIGNAL PROCESS
INPUT MATRIX
A/D
3D Y/C SEPARATION NTSC DECODER
RGB DATA (24bit)
IC5001
VIDEO SIGNAL PROCESS
· I/P CONVERTER
· PICTURE CONTROL
· MULTI WINDOW (PICTURE IN PICTURE SPLIT SCREEN SEARCH)
· SCALER(720p CONVERTER)
· OSD MIX
DTV Y DATA (8bit)
DTV UV DATA (8bit)
HDMI Y DATA (10bit)
HDMI UV DATA (10bit)
GC4PRO
R DATA (8bit)
G DATA (8bit)
B DATA (8bit)
IC5700
LVDS TRANSMITTER
TTL PARALLEL TO LVDS SERIAL CONVERTER
DATA BUS (32bit)
IC5002
64M SDRAM
<FOR IP CONVERTER, MULTI WINDOW, 3D Y/C SEPARATION, ETC>
CN5700
CN2502
LCD DRIVE P.C.B.
LVDS DATA/CLOCK
IC2504
LVDS RECEIVER
LVDS SERIAL TO TTL PARALLEL CONVERTER
IC2503
SIGNAL PROCESS FOR LCD PANEL
R DATA (8bit)
G DATA (8bit)
B DATA (8bit)
COLOR CORRECTION
R DATA (20bit)
G DATA (20bit)
B DATA (20bit)
· NON-UNIFORMITY COLOR COMPENSATION
· GAMMA CORRECTION
· WHITE BALANCE CONTROL
TIMING GENERATOR
IC2003, IC2004
IC2002, IC2005
IC2001, IC2006
SAMPLING HOLD
D/A
R DATA (12bit)
G DATA (12bit)
B DATA (12bit)
IC2007
IC2008
IC2009
LEVEL SHIFTER
CN2001
CN2002
CN2003
LCD(R)
LCD(G)
LCD(B)
SERIAL DATA/CLOCK
IC2301
LCD MICRO-CONTROLLER
FAN1 SPEED CONTROL
FAN2 SPEED CONTROL
FAN3 SPEED CONTROL
FAN ON(H)
FAN1 LOCK(H)
FAN2 LOCK(H)
FAN3 LOCK(H)
FILTER ERROR DETECTION
THERMO TEMP DATA 1
IC2702
IC2703
IC2704
DRIVE
CN2701
CN2702
CN2703
(FAN 1)
(FAN 2)
(FAN 3)
IC2705
OP AMP
IRIS UNIT
HALL-S P.C.B.
HALL ELEMENT
CN9700
CN9701
M
IRIS MOTOR
IRIS MECHANISM UNIT
IRIS P.C.B.
CN2705
CN9502
IC9502
IRIS MICRO-CONTROLLER
IC9500, IC9501,ETC
IRIS CONTROL
CN9500
IC2302
EEPROM
ADJUSTMENT DATA/SETTING DATA OF EACH IC's FOR LCD DRIVE P.C.B.
COVER SWITCH P.C.B.
CN2501
P2912
COVER SW
THERMISTOR 2 P.C.B.
CN2301
P2821
TEMPERATURE SENSOR
LAMP COVER OPEN(H)
IC6000
EEPROM
· SETTING DATA OF EACH IC's FOR MAIN P.C.B.
· USER ADJUSTMENT DATA
· ADJUSTMENT DATA
· LAMP TIME DATA
IC6001
OSD-R,B,G DATA
SERIAL DATA (UART)
IC6003
FLASH MEMORY
DATA BUS (16bit)
MAIN MICRO-CONTROLLER
DIGITAL TUNER P.C.B.
TUNER
ANT-IN
I2C SERIAL DATA/CLOCK
TUNER VIDEO (ANALOG)
IF (DIGITAL)
TUNER AUDIO (ANALOG)
DIGITAL AUDIO OUT
AUDIO OUT (DIGITAL)
IC8202
SW
IC8211,8240,ETC
DIGITAL TUNER SIGNAL PROCESS /SD CARD SIGNAL PROCESS
TUNER VIDEO (ANALOG)
TUNER VIDEO (Y/C)
AUDIO (L/R)
DTV Y DATA (8bit)
DTV UV DATA (8bit)
IC8232
TUNER AUDIO (L/R)
DT12
CN6003
CARD P.C.B.
SD CARD
P9005
P9003
DATA BUS (4bit)
DT10
PC AUDIO IN(L/R)
(WITH 2 HDMI INPUT)
IC5803
IC5802
EEPROM
HDMI INFORMATION DATA
HDMI IN1 (AV IN)
HDMI IN2 (AV IN)
TMDS DATA/CLOCK
IC5801
HDMI INTERFACE
IC5800
D/A
HDMI AUDIO IN(L/R)
FRONT JACK/OPERATION P.C.B.
REMOTE SENSOR
OPERATION BUTTON (KEY MATRIX)
CN6701
BASE P.C.B.
CN3101
CN3103
CN3000
POWER SWITCH P.C.B.
+3.3V
POWER
LAMP
TEMP
POWER SW
CN6801
CN6001
SOS2(OVER VOLTAGE/CURRENT DET/)
POWER SUPPLY CIRCUIT
AC SW ON (H)
AC ATOP (L)
LAMP ON(H)
LAMP STATUS(ON(L)/OFF(H))
CN6000
CN6002
POWER P.C.B.
POWER CONTROL CIRCUIT 2
CN1401
BALLAST CIRCUIT
LAMP
CN1514
CN1522
POWER SUPPLY CIRCUIT
AC IN
CN1520
TEMP FUSE
POWER CONTROL CIRCUIT 1
P2

OVERALL BLOCK DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

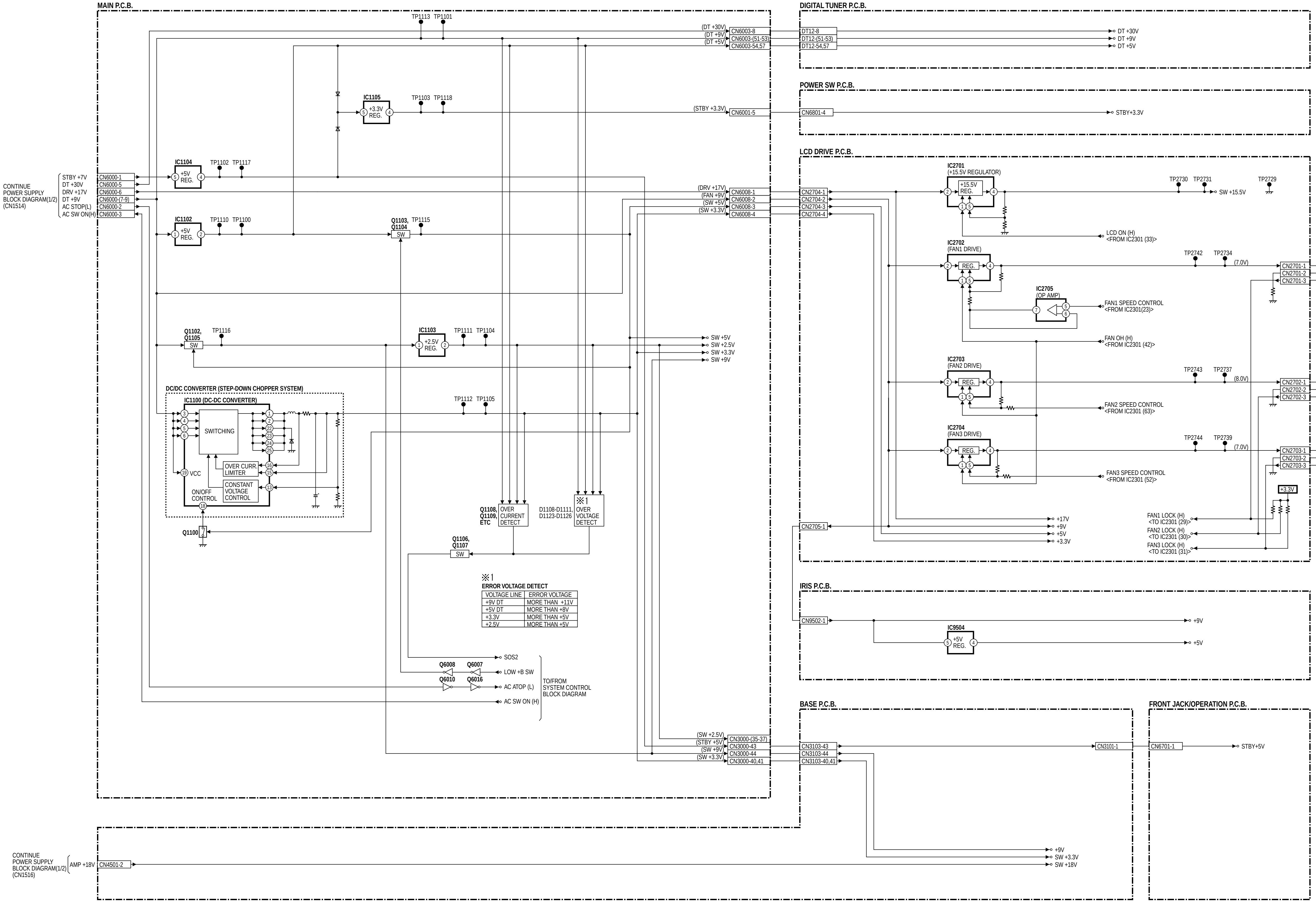
POWER SUPPLY BLOCK DIAGRAM (1/2)


POWER P.C.B.
AC IN
CN1001-1
CN1001-2
F1001
6.3A 250V
L1001
AC LINE FILTER
L1002
AC LINE FILTER
D1001
FULL-WAVE RETIFIER
T1801
R1005
RUSH CURRENT PROTECTOR
RL1902 SUB RELAY
RL1903 MAIN RELAY
PFC (POWER FACTOR CORRECTION)
D1805, TP1806
D1808
Q1801,Q1804
SW
C1810
SWITCHING CONTROL
IC1831 TP1804
Q1904
SW
IC1901, Q1903
D1807
IC1404,Q1802
OVER VOLTAGE DET.
(+400VDC)
PR1305
Q1303
Q1508
WF3
Q1304
Q1509
WF4
T1302
DRIVE TRANS.
T1405
CURRENT SENSOR TRANS.
OVER CURRENT DET.
T1401
MAIN POWER (SWITCHING TRANSFORMER)
PR1304
R1330
C1310
C1311
PR1301
PR1302
IC1409
-12V REG.
IC1408
+12V REG.
-12V
+12V
DT +30V
DRV +17V
DT +9V
+200V
AMP+18V
TP1311
Q1401,Q1402,T1402,
D1403,D1405,D1406,C1509
DC-DC CONVERTER FOR 100W CONTROL
TP1909
TP1911
TP1910
TP1901
TP1908
TP1301
TP1907
STBY +7V
DT +30V
DRV +17V
DT +9V
AC STOP(L)
AC SW ON(H)
DRIVE
Q1601
CN1514-1
CN1514-5
CN1514-6
CN1514-(7-9)
CN1514-2
CN1514-3
STBY +7V
DT +30V
DRV +17V
DT +9V
AC STOP(L)
AC SW ON(H)
CONTINUE POWER SUPPLY BLOCK DIAGRAM(2/2 (CN6000)
TP1501
TP1502
CN1520-1
CN1520-2
TEMP FUSE 117°C(243°F)
(ON THE LAMP HOUSE UNIT)
F1002
1.6A 250V
L1003
AC LINE FILTER
D1937
FULL-WAVE RETIFIER
C1939
T1901
SUB POWER (SWITCHING TRANSFORMER)
IC1931
WF5
SWITCHING CONTROL
TP1905
STBY+7V
STBY+12V
STBY+15V
IC1401
FEED BACK
IC1932
ERROR VOLTAGE DET
Q1305
OVER CURRENT DET.
OVER VOLTAGE DET.
D1320
D1321
IC1002,IC1003, IC1406,IC1407
AC VOLTAGE DETECT
IC1933,IC1934, IC1935
LOGIC
TP1914
AMP+18V
CN1516-2
AMP+18V
CONTINUE POWER SUPPLY BLOCK DIAGRAM(2/2) (CN4501)
WF1
WF2
R1324
+9V
IC1906
IC1937
REG.
P2
CN1401
DC-AC INVERTER
INVERTER DRIVE 1
INVERTER DRIVE 3
INVERTER DRIVE 2
INVERTER DRIVE 4
POWER CONTROL CIRCUIT 1 ON (H)
POWER CONTROL CIRCUIT 1 ON (H)
PFC OVER VOLTAGE DETECT (L)
SUB RELAY ON (L)
MAIN RELAY ON (L)
AC STOP (H)
PFC ON (H)
PWM CONTROL FOR LAMP POWER
GND
GND
GND
-12V
+12V
GND
WATTAGE
+7.5V
+7.5V
WATTAGE
WATTAGE
AC STOP (L)
LAMP ON DETECT (H)
IGNITER ON (H)
AC SW ON (H)
LAMP ON (H)
LAMP STATUS (OFF(L))
TP1544
TP1542
POWER CONTROL CIRCUIT 2
WF6
WF7
WF8
R1951
R1703
(Do not turn VR's!!)
PWM1
PWM2
OVER CURRENT DET. FOR PRIMARY CIRCUIT
OVER CURRENT DET. FOR SECONDARY CIRCUIT
OVER VOLTAGE DET. (POWER CONTROL CIRCUIT 1 OFF(L)/ON(M)/OVER VOLTAGE DET(H))
STBY+12V
+9V
POWER CONTROL CIRCUIT 1 ON (H)
+9V
POWER CONTROL CIRCUIT 1
TP1401
TP1402
Q1503, Q1506, ETC
NOISE REDUCTION
L1501
L1502
T1501
LAMP
TP1803
TP1802
Q1507
Q1510
D1506
R1511, R1512
D1505
C1507
Q1505
TP1503
Q1602
LAMP ON(L)/OFF(H)
CN1522-1
CN1522-3
LAMP ON (H)
LAMP STATUS
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM (CN6002)
TP1504

POWER SUPPLY BLOCK DIAGRAM (1/2)

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

POWER SUPPLY BLOCK DIAGRAM (2/2)


MAIN P.C.B.
DIGITAL TUNER P.C.B.
POWER SW P.C.B.
LCD DRIVE P.C.B.
IRIS P.C.B.
BASE P.C.B.
FRONT JACK/OPERATION P.C.B.
CONTINUE POWER SUPPLY BLOCK DIAGRAM(1/2) (CN1514)
STBY +7V
DT +30V
DRV +17V
DT +9V
AC STOP(L)
AC SW ON(H)
CN6000-1
CN6000-5
CN6000-6
CN6000-(7-9)
CN6000-2
CN6000-3
TP1113
TP1101
(DT +30V)
(DT +9V)
(DT +5V)
CN6003-8
CN6003-(51-53)
CN6003-54,57
DT12-8
DT12-(51-53)
DT12-54,57
DT +30V
DT +9V
DT +5V
IC1105
+3.3V REG.
TP1103
TP1118
(STBY +3.3V)
CN6001-5
CN6801-4
STBY+3.3V
IC1104
+5V REG.
TP1102
TP1117
IC1102
+5V REG.
TP1110
TP1100
Q1103, Q1104
TP1115
SW
(DRV +17V)
(FAN +9V)
(SW +5V)
(SW +3.3V)
CN6008-1
CN6008-2
CN6008-3
CN6008-4
CN2704-1
CN2704-2
CN2704-3
CN2704-4
IC2701
(+15.5V REGULATOR)
+15.5V REG.
TP2730
TP2731
TP2729
SW +15.5V
LCD ON (H)
<FROM IC2301 (33)>
IC2702
(FAN1 DRIVE)
REG.
TP2742
TP2734
(7.0V)
CN2701-1
CN2701-2
CN2701-3
FAN 1
IC2705
(OP AMP)
FAN1 SPEED CONTROL
<FROM IC2301(23)>
FAN OH (H)
<FROM IC2301 (42)>
Q1102, Q1105
TP1116
IC1103
+2.5V REG.
TP1111
TP1104
SW +5V
SW +2.5V
SW +3.3V
SW +9V
IC2703
(FAN2 DRIVE)
TP2743
TP2737
(8.0V)
CN2702-1
CN2702-2
CN2702-3
FAN2
FAN2 SPEED CONTROL
<FROM IC2301 (63)>
DC/DC CONVERTER (STEP-DOWN CHOPPER SYSTEM)
IC1100 (DC-DC CONVERTER)
SWITCHING
OVER CURR LIMITER
CONSTANT VOLTAGE CONTROL
VCC
ON/OFF CONTROL
TP1112
TP1105
IC2704
(FAN3 DRIVE)
TP2744
TP2739
(7.0V)
CN2703-1
CN2703-2
CN2703-3
FAN3
FAN3 SPEED CONTROL
<FROM IC2301 (52)>
+3.3V
Q1108, Q1109, ETC
OVER CURRENT DETECT
D1108-D1111, D1123-D1126
※1
OVER VOLTAGE DETECT
Q1100
CN2705-1
+17V
+9V
+5V
+3.3V
FAN1 LOCK (H)
<TO IC2301 (29)>
FAN2 LOCK (H)
<TO IC2301 (30)>
FAN3 LOCK (H)
<TO IC2301 (31)>
Q1106, Q1107
SW
CN9502-1
+9V
IC9504
+5V REG.
+5V
SOS2
Q6008
Q6007
LOW +B SW
Q6010
Q6016
AC ATOP (L)
AC SW ON (H)
TO/FROM SYSTEM CONTROL BLOCK DIAGRAM
(SW +2.5V)
(STBY +5V)
(SW +9V)
(SW +3.3V)
CN3000-(35-37)
CN3000-43
CN3000-44
CN3000-40,41
CN3103-43
CN3103-44
CN3103-40,41
CN3101-1
CN6701-1
STBY+5V
+9V
SW +3.3V
SW +18V
CONTINUE POWER SUPPLY BLOCK DIAGRAM(1/2) (CN1516)
AMP +18V
CN4501-2

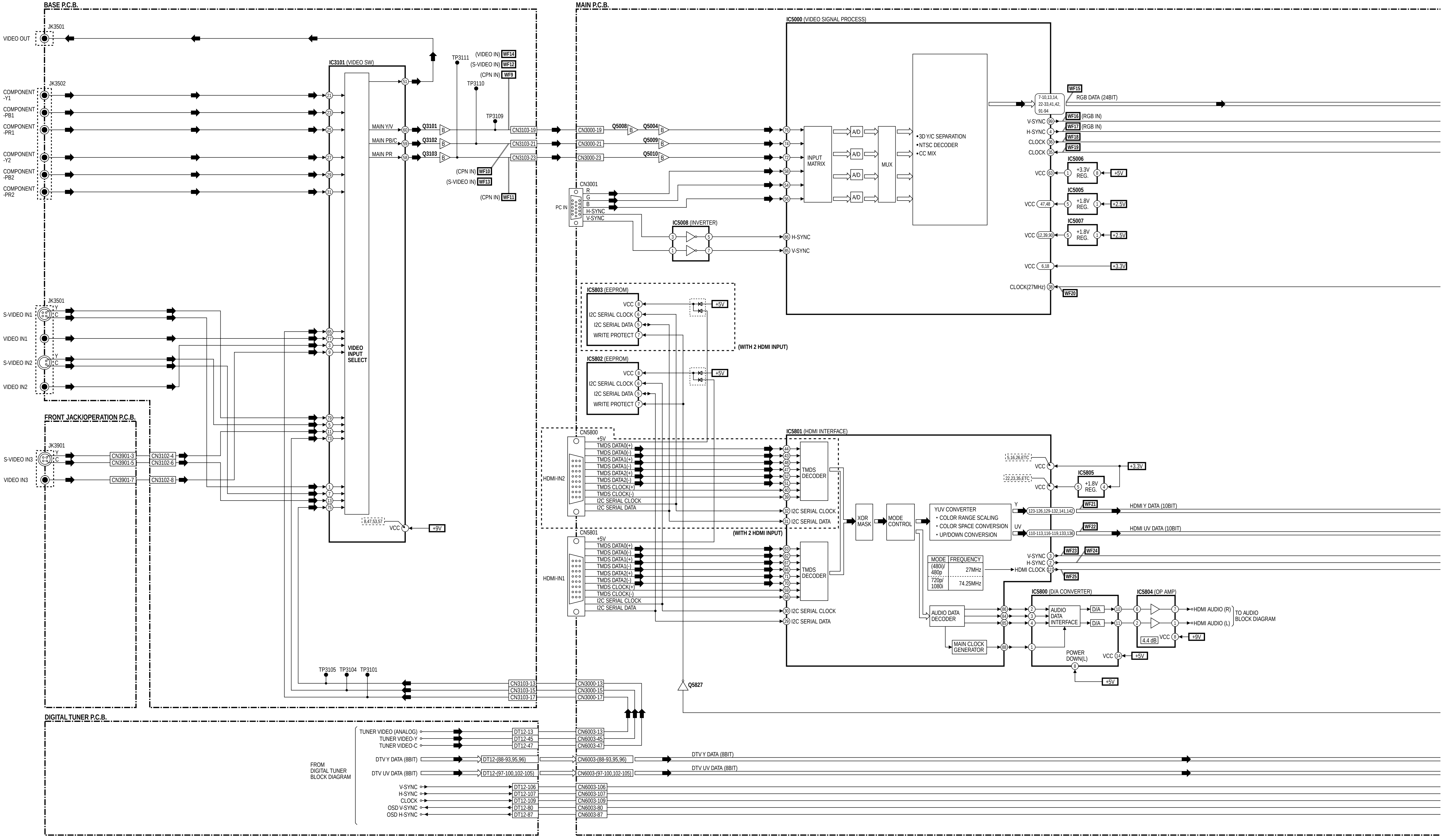
※1
ERROR VOLTAGE DETECT

VOLTAGE LINE	ERROR VOLTAGE
+9V DT	MORE THAN +11V
+5V DT	MORE THAN +8V
+3.3V	MORE THAN +5V
+2.5V	MORE THAN +5V

POWER SUPPLY BLOCK DIAGRAM (2/2)

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

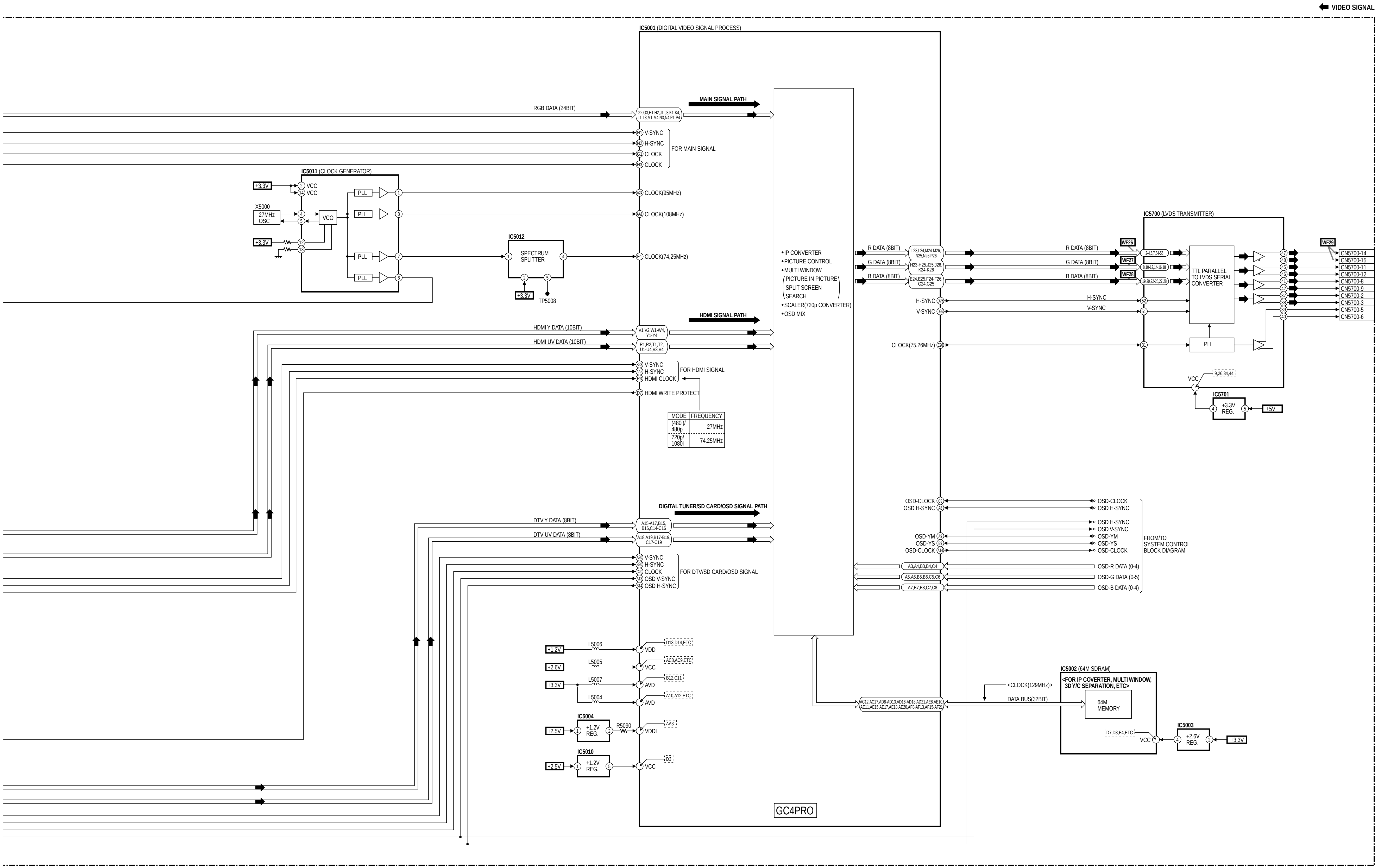
VIDEO SIGNAL PATH I BLOCK DIAGRAM (1/2)


BASE P.C.B.
MAIN P.C.B.
FRONT JACK/OPERATION P.C.B.
DIGITAL TUNER P.C.B.
JK3501
VIDEO OUT
JK3502
COMPONENT -Y1
COMPONENT -PB1
COMPONENT -PR1
COMPONENT -Y2
COMPONENT -PB2
COMPONENT -PR2
S-VIDEO IN1
VIDEO IN1
S-VIDEO IN2
VIDEO IN2
JK3901
S-VIDEO IN3
VIDEO IN3
Y
C
CN3901-3
CN3901-5
CN3901-7
CN3102-4
CN3102-6
CN3102-8
IC3101 (VIDEO SW)
VIDEO INPUT SELECT
MAIN Y/V
MAIN PB/C
MAIN PR
Q3101
Q3102
Q3103
TP3111
TP3110
TP3109
(VIDEO IN) WF14
(S-VIDEO IN) WF12
(CPN IN) WF9
(CPN IN) WF10
(S-VIDEO IN) WF13
(CPN IN) WF11
8,47,53,57
VCC
+9V
CN3103-19
CN3103-21
CN3103-23
CN3000-19
CN3000-21
CN3000-23
Q5008
Q5004
Q5009
Q5010
CN3001
PC IN
R
G
B
H-SYNC
V-SYNC
IC5008 (INVERTER)
IC5000 (VIDEO SIGNAL PROCESS)
INPUT MATRIX
A/D
MUX
3D Y/C SEPARATION
NTSC DECODER
CC MIX
H-SYNC
V-SYNC
WF15
7-10,13,14, 22-33,41,42, 91-94
RGB DATA (24BIT)
V-SYNC
H-SYNC
CLOCK
CLOCK
WF16 (RGB IN)
WF17 (RGB IN)
WF18
WF19
IC5006
+3.3V REG.
+5V
IC5005
+1.8V REG.
+2.5V
IC5007
+1.8V REG.
+2.5V
VCC
47,48
12,39,90
6,18
+3.3V
CLOCK(27MHz)
WF20
IC5803 (EEPROM)
VCC
I2C SERIAL CLOCK
I2C SERIAL DATA
WRITE PROTECT
+5V
(WITH 2 HDMI INPUT)
IC5802 (EEPROM)
CN5800
HDMI-IN2
+5V
TMDS DATA0(+)
TMDS DATA0(-)
TMDS DATA1(+)
TMDS DATA1(-)
TMDS DATA2(+)
TMDS DATA2(-)
TMDS CLOCK(+)
TMDS CLOCK(-)
I2C SERIAL CLOCK
I2C SERIAL DATA
CN5801
HDMI-IN1
(WITH 2 HDMI INPUT)
IC5801 (HDMI INTERFACE)
TMDS DECODER
XOR MASK
MODE CONTROL
YUV CONVERTER
• COLOR RANGE SCALING
• COLOR SPACE CONVERSION
• UP/DOWN CONVERSION
MODE | FREQUENCY
(480i)/480p | 27MHz
720p/1080i | 74.25MHz
5,16,26,ETC.
22,29,35,ETC.
IC5805
+1.8V REG.
+3.3V
Y
UV
123-126,129-132,141,142
110-113,116-119,133,136
WF21
WF22
HDMI Y DATA (10BIT)
HDMI UV DATA (10BIT)
V-SYNC
H-SYNC
HDMI CLOCK
WF23
WF24
WF25
AUDIO DATA DECODER
MAIN CLOCK GENERATOR
IC5800 (D/A CONVERTER)
AUDIO DATA INTERFACE
D/A
POWER DOWN(L)
IC5804 (OP AMP)
4.4 dB
HDMI AUDIO (R)
HDMI AUDIO (L)
TO AUDIO BLOCK DIAGRAM
+9V
+5V
Q5827
TP3105
TP3104
TP3101
CN3103-13
CN3103-15
CN3103-17
CN3000-13
CN3000-15
CN3000-17
FROM DIGITAL TUNER BLOCK DIAGRAM
TUNER VIDEO (ANALOG)
TUNER VIDEO-Y
TUNER VIDEO-C
DTV Y DATA (8BIT)
DTV UV DATA (8BIT)
V-SYNC
H-SYNC
CLOCK
OSD V-SYNC
OSD H-SYNC
DT12-13
DT12-45
DT12-47
DT12-(88-93,95,96)
DT12-(97-100,102-105)
DT12-106
DT12-107
DT12-109
DT12-80
DT12-87
CN6003-13
CN6003-45
CN6003-47
CN6003-(88-93,95,96)
CN6003-(97-100,102-105)
CN6003-106
CN6003-107
CN6003-109
CN6003-80
CN6003-87
DTV Y DATA (8BIT)
DTV UV DATA (8BIT)

VIDEO SIGNAL PATH I BLOCK DIAGRAM (1/2)

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

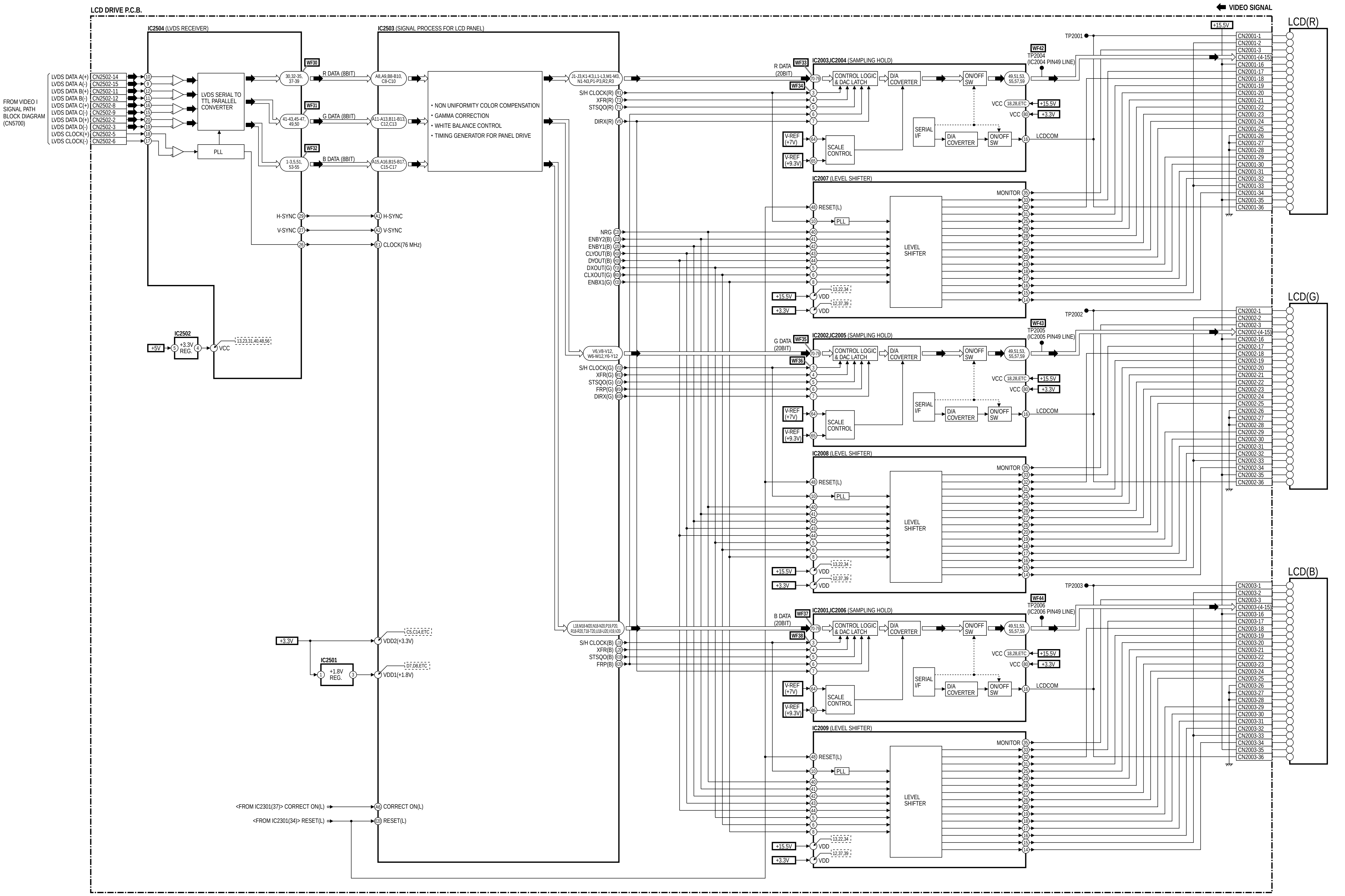
VIDEO SIGNAL PATH I BLOCK DIAGRAM (2/2)


VIDEO SIGNAL
IC5001 (DIGITAL VIDEO SIGNAL PROCESS)
MAIN SIGNAL PATH
RGB DATA (24BIT)
G2,G3,H1,H2,J1-J3,K1-K4, L1-L3,M1-M4,N3,N4,P1-P4
N1 V-SYNC
N2 H-SYNC
G1 CLOCK
H3 CLOCK
FOR MAIN SIGNAL
IC5011 (CLOCK GENERATOR)
+3.3V
2 VCC
14 VCC
X5000
27MHz OSC
4
5
VCO
+3.3V
12
13
PLL
PLL
PLL
PLL
1
8
7
6
A24 CLOCK(95MHz)
AA1 CLOCK(108MHz)
IC5012
SPECTRUM SPLITTER
1
4
2
5
+3.3V
TP5008
E1 CLOCK(74.25MHz)
• IP CONVERTER
• PICTURE CONTROL
• MULTI WINDOW
PICTURE IN PICTURE
SPLIT SCREEN
SEARCH
• SCALER(720p CONVERTER)
• OSD MIX
HDMI SIGNAL PATH
HDMI Y DATA (10BIT)
V1,V2,W1-W4, Y1-Y4
HDMI UV DATA (10BIT)
R1,R2,T1,T2, U1-U4,V3,V4
B23 V-SYNC
AA2 H-SYNC
R3 HDMI CLOCK
FOR HDMI SIGNAL
D7 HDMI WRITE PROTECT
MODE | FREQUENCY
(480i)/480p | 27MHz
720p/1080i | 74.25MHz
DIGITAL TUNER/SD CARD/OSD SIGNAL PATH
DTV Y DATA (8BIT)
A15-A17,B15, B16,C14-C16
DTV UV DATA (8BIT)
A18,A19,B17-B19, C17-C19
A20 V-SYNC
B20 H-SYNC
C20 CLOCK
A13 OSD V-SYNC
B14 OSD H-SYNC
FOR DTV/SD CARD/OSD SIGNAL
+1.2V
L5006
VDD
D13,D14,ETC
+2.6V
L5005
VCC
AC8,AC9,ETC
+3.3V
L5007
AVD
B12,C11
L5004
AVD
A10,A12,ETC
IC5004
+2.5V
1
+1.2V REG.
2
R5090
VDDI
AA3
IC5010
+2.5V
1
+1.2V REG.
5
VCC
D3
GC4PRO
R DATA (8BIT)
L23,L24,M24-M26, N25,N26,P26
G DATA (8BIT)
H23-H25,J25,J26, K24-K26
B DATA (8BIT)
E24,E25,F24-F26, G24,G25
H-SYNC D25
V-SYNC D26
CLOCK(75.26MHz) E26
R DATA (8BIT)
G DATA (8BIT)
B DATA (8BIT)
H-SYNC
V-SYNC
WF26
WF27
WF28
WF29
IC5700 (LVDS TRANSMITTER)
2-4,6,7,54-56
8,10-12,14-16,18
19,20,22-25,27,28
52
51
31
TTL PARALLEL TO LVDS SERIAL CONVERTER
PLL
47 CN5700-14 LVDS DATA A(+)
48 CN5700-15 LVDS DATA A(-)
45 CN5700-11 LVDS DATA B(+)
46 CN5700-12 LVDS DATA B(-)
41 CN5700-8 LVDS DATA C(+)
42 CN5700-9 LVDS DATA C(-)
37 CN5700-2 LVDS DATA D(+)
38 CN5700-3 LVDS DATA D(-)
39 CN5700-5 LVDS CLOCK(+)
40 CN5700-6 LVDS CLOCK(-)
TO VIDEO II SIGNAL PATH BLOCK DIAGRAM (CN2502)
VCC
9,26,34,44
IC5701
4
+3.3V REG.
5
+5V
OSD-CLOCK C9
OSD H-SYNC A8
OSD-YM A9
OSD-YS B9
OSD-CLOCK A14
A3,A4,B3,B4,C4
A5,A6,B5,B6,C5,C6
A7,B7,B8,C7,C8
OSD-CLOCK
OSD H-SYNC
OSD H-SYNC
OSD V-SYNC
OSD-YM
OSD-YS
OSD-CLOCK
OSD-R DATA (0-4)
OSD-G DATA (0-5)
OSD-B DATA (0-4)
FROM/TO SYSTEM CONTROL BLOCK DIAGRAM
AC12,AC17,AD8-AD13,AD16-AD18,AD21,AE8,AE10, AE11,AE15,AE17,AE18,AE20,AF8-AF13,AF15-AF21
<CLOCK(129MHz)>
DATA BUS(32BIT)
IC5002 (64M SDRAM)
<FOR IP COVERTER, MULTI WINDOW, 3D Y/C SEPARATION, ETC>
64M MEMORY
D7,D8,E4,ETC
VCC
IC5003
4
+2.6V REG.
2
+3.3V

VIDEO SIGNAL PATH I BLOCK DIAGRAM (2/2)

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

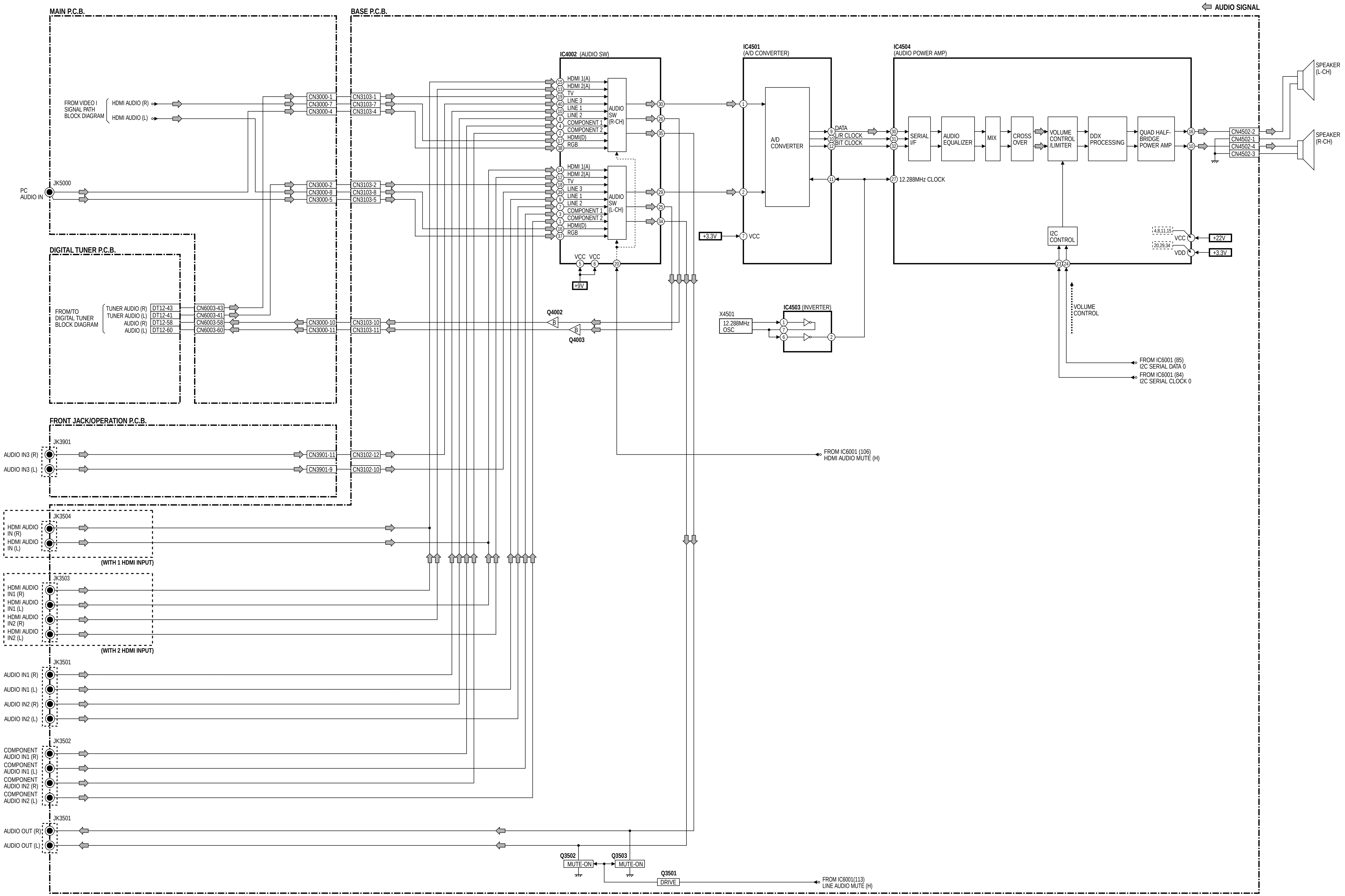
VIDEO SIGNAL PATH II BLOCK DIAGRAM


LCD DRIVE P.C.B.
VIDEO SIGNAL
IC2504 (LVDS RECEIVER)
IC2503 (SIGNAL PROCESS FOR LCD PANEL)
FROM VIDEO I SIGNAL PATH BLOCK DIAGRAM (CN5700)
LVDS DATA A(+) CN2502-14
LVDS DATA A(-) CN2502-15
LVDS DATA B(+) CN2502-11
LVDS DATA B(-) CN2502-12
LVDS DATA C(+) CN2502-8
LVDS DATA C(-) CN2502-9
LVDS DATA D(+) CN2502-2
LVDS DATA D(-) CN2502-3
LVDS CLOCK(+) CN2502-5
LVDS CLOCK(-) CN2502-6
LVDS SERIAL TO TTL PARALLEL CONVERTER
PLL
R DATA (8BIT)
G DATA (8BIT)
B DATA (8BIT)
WF30
WF31
WF32
• NON UNIFORMITY COLOR COMPENSATION
• GAMMA CORRECTION
• WHITE BALANCE CONTROL
• TIMING GENERATOR FOR PANEL DRIVE
H-SYNC
V-SYNC
CLOCK(76 MHz)
IC2502
+5V
+3.3V REG.
VCC
IC2501
+3.3V
+1.8V REG.
VDD2(+3.3V)
VDD1(+1.8V)
<FROM IC2301(37)> CORRECT ON(L)
<FROM IC2301(34)> RESET(L)
CORRECT ON(L)
RESET(L)
S/H CLOCK(R)
XFR(R)
STSQO(R)
DIRX(R)
NRG
ENBY2(B)
ENBY1(B)
CLYOUT(B)
DYOUT(B)
DXOUT(G)
CLXOUT(G)
ENBX1(G)
S/H CLOCK(G)
XFR(G)
STSQO(G)
FRP(G)
DIRX(G)
S/H CLOCK(B)
XFR(B)
STSQO(B)
FRP(B)
R DATA (20BIT)
G DATA (20BIT)
B DATA (20BIT)
WF33
WF34
WF35
WF36
WF37
WF38
IC2003,IC2004 (SAMPLING HOLD)
IC2002,IC2005 (SAMPLING HOLD)
IC2001,IC2006 (SAMPLING HOLD)
CONTROL LOGIC & DAC LATCH
D/A COVERTER
ON/OFF SW
SERIAL I/F
SCALE CONTROL
V-REF (+7V)
V-REF (+9.3V)
VCC
+15.5V
+3.3V
LCDCOM
IC2007 (LEVEL SHIFTER)
IC2008 (LEVEL SHIFTER)
IC2009 (LEVEL SHIFTER)
MONITOR
RESET(L)
LEVEL SHIFTER
VDD
TP2001
TP2002
TP2003
WF42
TP2004 (IC2004 PIN49 LINE)
WF43
TP2005 (IC2005 PIN49 LINE)
WF44
TP2006 (IC2006 PIN49 LINE)
LCD(R)
LCD(G)
LCD(B)
CN2001-1 – CN2001-36
CN2002-1 – CN2002-36
CN2003-1 – CN2003-36

VIDEO SIGNAL PATH II BLOCK DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

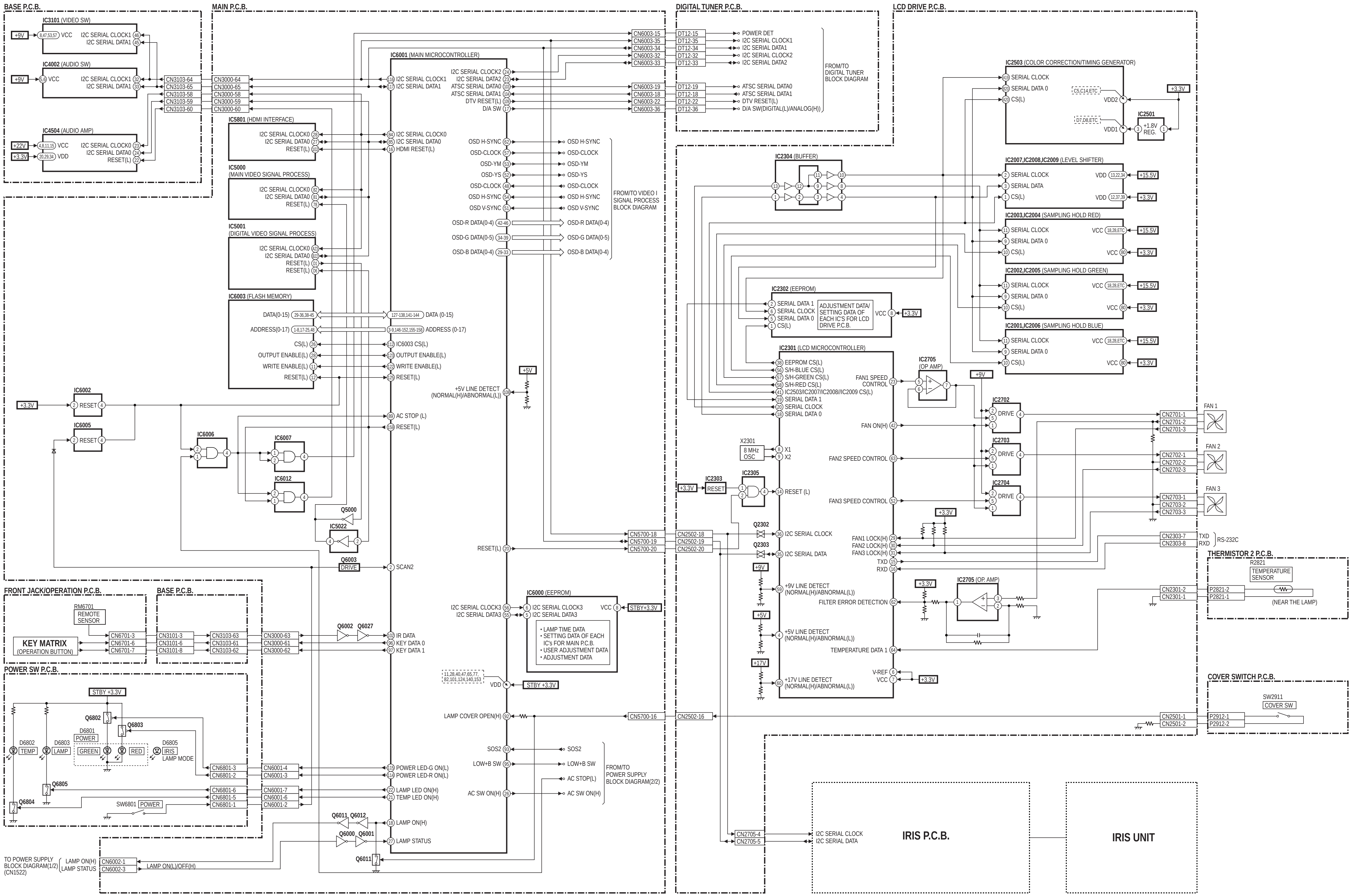
AUDIO SIGNAL PATH BLOCK DIAGRAM


AUDIO SIGNAL
MAIN P.C.B.
BASE P.C.B.
FROM VIDEO I SIGNAL PATH BLOCK DIAGRAM
HDMI AUDIO (R)
HDMI AUDIO (L)
CN3000-1
CN3000-7
CN3000-4
CN3103-1
CN3103-7
CN3103-4
JK5000
PC AUDIO IN
CN3000-2
CN3000-8
CN3000-5
CN3103-2
CN3103-8
CN3103-5
DIGITAL TUNER P.C.B.
FROM/TO DIGITAL TUNER BLOCK DIAGRAM
TUNER AUDIO (R)
TUNER AUDIO (L)
AUDIO (R)
AUDIO (L)
DT12-43
DT12-41
DT12-58
DT12-60
CN6003-43
CN6003-41
CN6003-58
CN6003-60
CN3000-10
CN3000-11
CN3103-10
CN3103-11
IC4002 (AUDIO SW)
HDMI 1(A)
HDMI 2(A)
TV
LINE 3
LINE 1
LINE 2
COMPONENT 1
COMPONENT 2
HDMI(D)
RGB
AUDIO SW (R-CH)
AUDIO SW (L-CH)
15
13
19
40
10
8
4
2
17
38
14
12
18
39
9
7
3
1
16
37
30
26
35
29
25
34
VCC
VCC
5
6
20
+9V
Q4002
Q4003
B
IC4501 (A/D CONVERTER)
A/D CONVERTER
1
2
7
VCC
+3.3V
DATA
L/R CLOCK
BIT CLOCK
9
10
12
11
X4501
12.288MHz OSC
IC4503 (INVERTER)
1
7
6
2
IC4504 (AUDIO POWER AMP)
30
31
32
SERIAL I/F
AUDIO EQUALIZER
MIX
CROSS OVER
VOLUME CONTROL /LIMITER
DDX PROCESSING
QUAD HALF-BRIDGE POWER AMP
27
12.288MHz CLOCK
I2C CONTROL
23
24
4,8,11,15
20,29,34
VCC
VDD
+22V
+3.3V
16
10
CN4502-2
CN4502-1
CN4502-4
CN4502-3
SPEAKER (L-CH)
SPEAKER (R-CH)
VOLUME CONTROL
FROM IC6001 (85) I2C SERIAL DATA 0
FROM IC6001 (84) I2C SERIAL CLOCK 0
FROM IC6001 (106) HDMI AUDIO MUTE (H)
FRONT JACK/OPERATION P.C.B.
JK3901
AUDIO IN3 (R)
AUDIO IN3 (L)
CN3901-11
CN3901-9
CN3102-12
CN3102-10
JK3504
HDMI AUDIO IN (R)
HDMI AUDIO IN (L)
(WITH 1 HDMI INPUT)
JK3503
HDMI AUDIO IN1 (R)
HDMI AUDIO IN1 (L)
HDMI AUDIO IN2 (R)
HDMI AUDIO IN2 (L)
(WITH 2 HDMI INPUT)
JK3501
AUDIO IN1 (R)
AUDIO IN1 (L)
AUDIO IN2 (R)
AUDIO IN2 (L)
JK3502
COMPONENT AUDIO IN1 (R)
COMPONENT AUDIO IN1 (L)
COMPONENT AUDIO IN2 (R)
COMPONENT AUDIO IN2 (L)
JK3501
AUDIO OUT (R)
AUDIO OUT (L)
Q3502
MUTE-ON
Q3503
MUTE-ON
Q3501
DRIVE
FROM IC6001(113) LINE AUDIO MUTE (H)

AUDIO SIGNAL PATH BLOCK DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

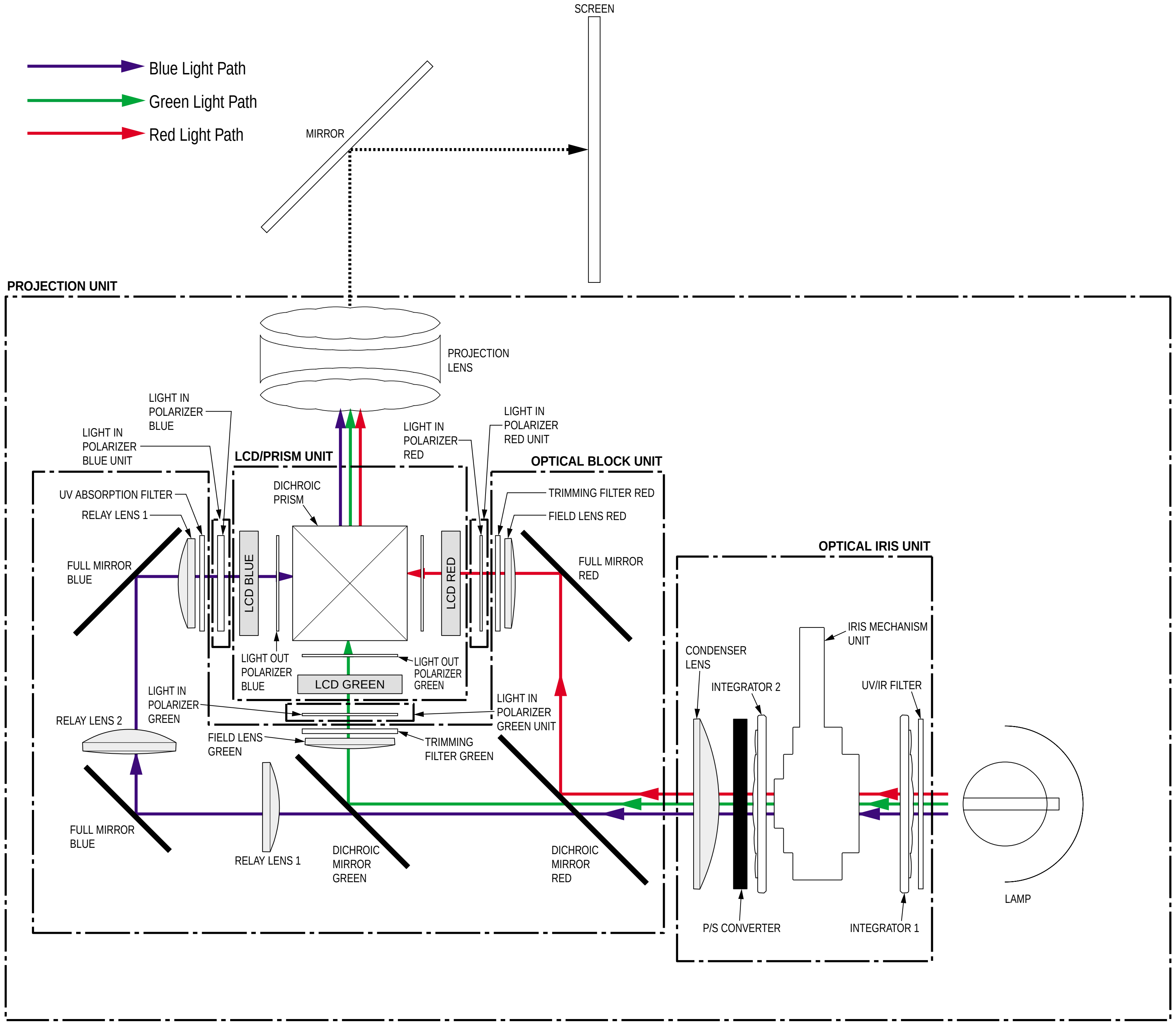
SYSTEM CONTROL BLOCK DIAGRAM


BASE P.C.B.
IC3101 (VIDEO SW)
+9V
VCC
I2C SERIAL CLOCK1
I2C SERIAL DATA1
IC4002 (AUDIO SW)
IC4504 (AUDIO AMP)
+22V
+3.3V
VDD
I2C SERIAL CLOCK0
I2C SERIAL DATA0
RESET(L)
MAIN P.C.B.
IC6001 (MAIN MICROCONTROLLER)
IC5801 (HDMI INTERFACE)
IC5000 (MAIN VIDEO SIGNAL PROCESS)
IC5001 (DIGITAL VIDEO SIGNAL PROCESS)
IC6003 (FLASH MEMORY)
DATA(0-15)
ADDRESS(0-17)
CS(L)
OUTPUT ENABLE(L)
WRITE ENABLE(L)
IC6003 CS(L)
HDMI RESET(L)
I2C SERIAL CLOCK2
I2C SERIAL DATA2
ATSC SERIAL DATA0
ATSC SERIAL DATA1
DTV RESET(L)
D/A SW
OSD H-SYNC
OSD-CLOCK
OSD-YM
OSD-YS
OSD V-SYNC
OSD-R DATA(0-4)
OSD-G DATA(0-5)
OSD-B DATA(0-4)
FROM/TO VIDEO I SIGNAL PROCESS BLOCK DIAGRAM
+5V LINE DETECT (NORMAL(H)/ABNORMAL(L))
+5V
AC STOP (L)
IC6002
IC6005
RESET
IC6006
IC6007
IC6012
Q5000
IC5022
Q6003
DRIVE
SCAN2
IC6000 (EEPROM)
I2C SERIAL CLOCK3
I2C SERIAL DATA3
STBY+3.3V
• LAMP TIME DATA
• SETTING DATA OF EACH IC'S FOR MAIN P.C.B.
• USER ADJUSTMENT DATA
• ADJUSTMENT DATA
IR DATA
KEY DATA 0
KEY DATA 1
Q6002
Q6027
VDD
LAMP COVER OPEN(H)
SOS2
LOW+B SW
AC STOP(L)
AC SW ON(H)
FROM/TO POWER SUPPLY BLOCK DIAGRAM(2/2)
POWER LED-G ON(L)
POWER LED-R ON(L)
LAMP LED ON(H)
TEMP LED ON(H)
LAMP ON(H)
LAMP STATUS
Q6011
Q6012
Q6000
Q6001
FRONT JACK/OPERATION P.C.B.
RM6701
REMOTE SENSOR
KEY MATRIX
(OPERATION BUTTON)
POWER SW P.C.B.
STBY +3.3V
Q6802
Q6803
D6801 POWER
D6802 TEMP
D6803 LAMP
GREEN
RED
D6805 IRIS
LAMP MODE
Q6805
Q6804
SW6801 POWER
TO POWER SUPPLY BLOCK DIAGRAM(1/2) (CN1522)
LAMP ON(H)
LAMP STATUS
LAMP ON(L)/OFF(H)
DIGITAL TUNER P.C.B.
POWER DET
FROM/TO DIGITAL TUNER BLOCK DIAGRAM
D/A SW(DIGITAL(L)/ANALOG(H))
LCD DRIVE P.C.B.
IC2503 (COLOR CORRECTION/TIMING GENERATOR)
SERIAL CLOCK
SERIAL DATA 0
CS(L)
VDD2
VDD1
IC2501
+1.8V REG.
IC2304 (BUFFER)
IC2007,IC2008,IC2009 (LEVEL SHIFTER)
+15.5V
IC2003,IC2004 (SAMPLING HOLD RED)
IC2002,IC2005 (SAMPLING HOLD GREEN)
IC2001,IC2006 (SAMPLING HOLD BLUE)
IC2302 (EEPROM)
ADJUSTMENT DATA/ SETTING DATA OF EACH IC'S FOR LCD DRIVE P.C.B.
IC2301 (LCD MICROCONTROLLER)
EEPROM CS(L)
S/H-BLUE CS(L)
S/H-GREEN CS(L)
S/H-RED CS(L)
IC2503/IC2007/IC2008/IC2009 CS(L)
SERIAL DATA 1
FAN1 SPEED CONTROL
IC2705 (OP AMP)
+9V
IC2702
IC2703
IC2704
DRIVE
FAN 1
FAN 2
FAN 3
FAN ON(H)
FAN2 SPEED CONTROL
FAN3 SPEED CONTROL
X2301 8 MHz OSC
IC2303 RESET
IC2305
RESET (L)
Q2302
Q2303
I2C SERIAL CLOCK
I2C SERIAL DATA
FAN1 LOCK(H)
FAN2 LOCK(H)
FAN3 LOCK(H)
TXD
RXD
RS-232C
+9V LINE DETECT (NORMAL(H)/ABNORMAL(L))
FILTER ERROR DETECTION
+5V LINE DETECT (NORMAL(H)/ABNORMAL(L))
TEMPERATURE DATA 1
V-REF
+17V LINE DETECT (NORMAL(H)/ABNORMAL(L))
THERMISTOR 2 P.C.B.
R2821 TEMPERATURE SENSOR
(NEAR THE LAMP)
COVER SWITCH P.C.B.
SW2911 COVER SW
IRIS P.C.B.
IRIS UNIT

SYSTEM CONTROL BLOCK DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

OPTICAL BLOCK DIAGRAM


Blue Light Path
Green Light Path
Red Light Path
SCREEN
MIRROR
PROJECTION UNIT
PROJECTION LENS
LIGHT IN POLARIZER BLUE
LIGHT IN POLARIZER BLUE UNIT
LCD/PRISM UNIT
LIGHT IN POLARIZER RED
LIGHT IN POLARIZER RED UNIT
OPTICAL BLOCK UNIT
UV ABSORPTION FILTER
RELAY LENS 1
DICHROIC PRISM
TRIMMING FILTER RED
FIELD LENS RED
FULL MIRROR BLUE
LCD BLUE
LCD RED
FULL MIRROR RED
OPTICAL IRIS UNIT
IRIS MECHANISM UNIT
CONDENSER LENS
LIGHT OUT POLARIZER BLUE
LIGHT OUT POLARIZER GREEN
LCD GREEN
INTEGRATOR 2
UV/IR FILTER
LIGHT IN POLARIZER GREEN
LIGHT IN POLARIZER GREEN UNIT
RELAY LENS 2
FIELD LENS GREEN
TRIMMING FILTER GREEN
FULL MIRROR BLUE
RELAY LENS 1
DICHROIC MIRROR GREEN
DICHROIC MIRROR RED
LAMP
P/S CONVERTER
INTEGRATOR 1

13 Schematic Diagrams

13.1. SCHEMATIC DIAGRAM & CIRCUIT BOARD LAYOUT NOTES

1. **Important safety notice**
   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components. Use only the specified parts.

2. Do not use the part number shown on this drawing for ordering.
   The correct part number and part value is shown in the parts list, and may be slightly different or amended since this drawing was prepared.

3. Use only original replacement parts:
   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list section of the service manual.

4. Parts different in shape or size may be used.
   However, only interchangeable parts will be supplied as service replacement parts.

5. Test point information
   ● : Test point with a jumper wire across a hole in P.C.B.
   ○ : Test point with no test pin.

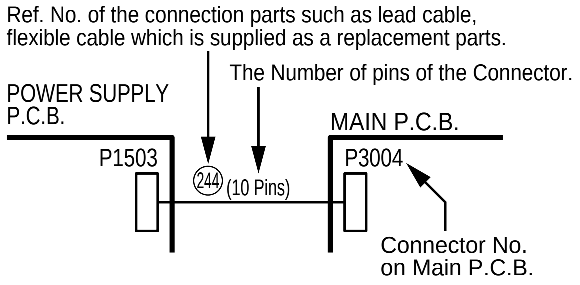
Schematic Diagram Notes

1. Indication for Zener Voltage of Zener Diodes
   The Zener Voltage of Zener Diodes are indicated as such on Schematic Diagrams.

   Example:
   (6.2V)......Zener Voltage

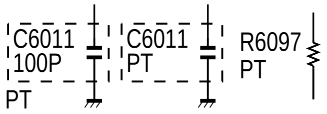
2. How to identify Connectors
   Each connector is labeled with a Connector No. and Pin No. Indicating what it is connected to,
   in other words, its counter part.
   Use the interconnection schematic diagram to find the connection between associated connectors.

   Example:
   The connections between P.C.B.s are shown below.


Ref. No. of the connection parts such as lead cable, flexible cable which is supplied as a replacement parts.
The Number of pins of the Connector.
POWER SUPPLY P.C.B.
P1503
244
(10 Pins)
MAIN P.C.B.
P3004
Connector No. on Main P.C.B.

3. Parts marked "PT" are not used in any models included in this service model.

   Example:



4. Jumper wires are used for WA10, WA5 etc and these are not supplied as replacement parts.

Circuit Board Layout Note

Circuit Board Layout shows components installed for various models.
For proper parts content for the model you are servicing, please refer to the schematic diagram and parts list.

NOTE:
Circuit Board Layout includes components which are not used.

Base P.C.B. replacement note:

The Base P.C.B. has been changed on a running change basis. When servicing, please first check suffix (version) number on the Base P.C.B. component side.

Model No. Identification Mark

COMPARISON CHART
OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT

Note : Refer to item 3 of Schematic Diagram Notes for mark "PT".

13.2. INTERCONNECTION SCHEMATIC DIAGRAM

INTERCONNECTION SCHEMATIC DIAGRAM

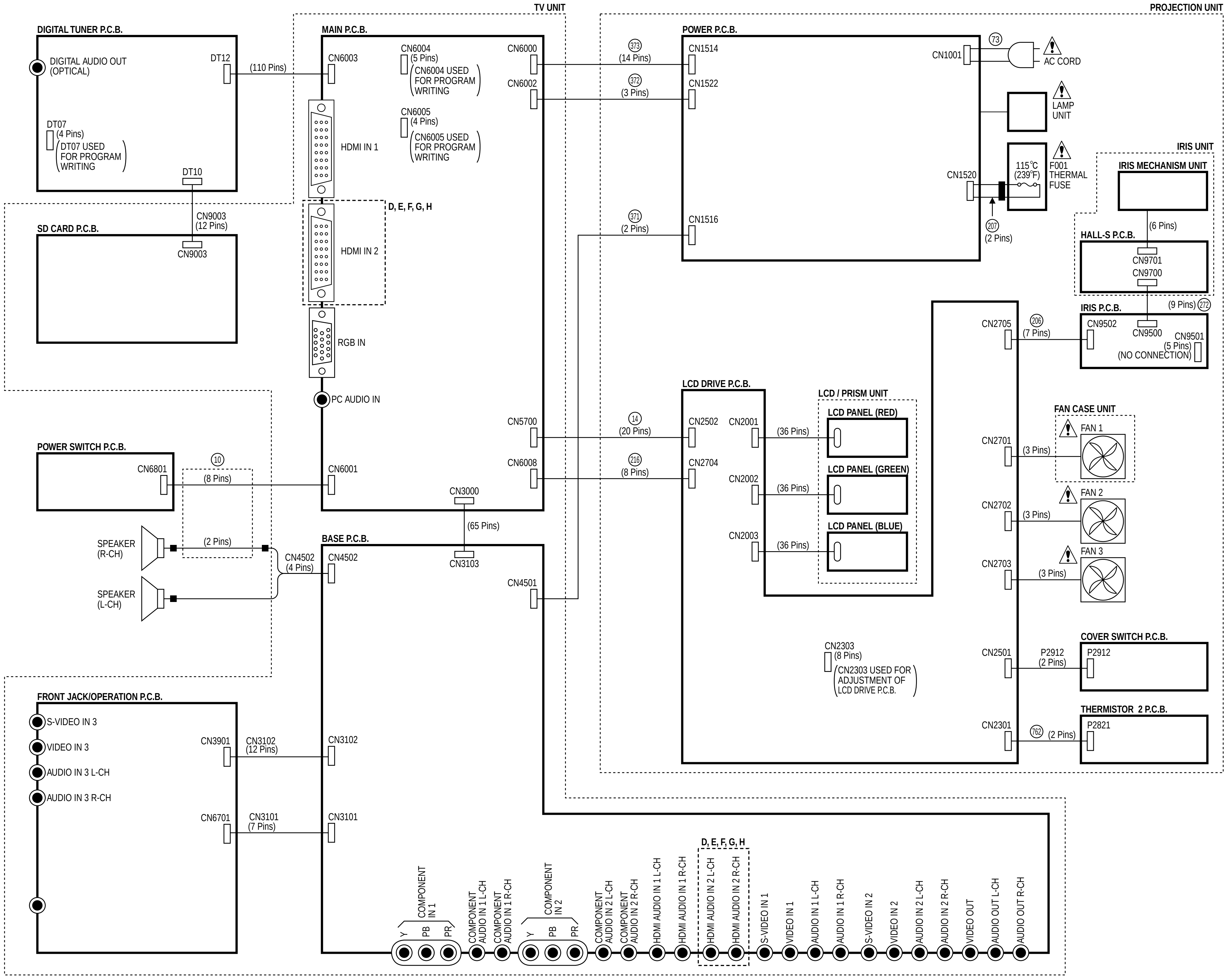
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
THE LAMP UNIT IS NOT SUPPLIED AS A REPLACEMENT PART.
WHEN REPLACING, REPLACE THE LAMP UNIT WHICH IS
SUPPLIED AS A OPTIONAL ACCESSORY.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


TV UNIT
PROJECTION UNIT
DIGITAL TUNER P.C.B.
DIGITAL AUDIO OUT (OPTICAL)
DT12
(110 Pins)
DT07
(4 Pins)
DT07 USED FOR PROGRAM WRITING
DT10
CN9003
(12 Pins)
SD CARD P.C.B.
CN9003
MAIN P.C.B.
CN6003
CN6004
(5 Pins)
CN6004 USED FOR PROGRAM WRITING
CN6005
(4 Pins)
CN6005 USED FOR PROGRAM WRITING
CN6000
CN6002
HDMI IN 1
HDMI IN 2
D, E, F, G, H
RGB IN
PC AUDIO IN
CN5700
CN6008
CN6001
CN3000
(65 Pins)
CN3103
POWER SWITCH P.C.B.
CN6801
10
(8 Pins)
SPEAKER (R-CH)
SPEAKER (L-CH)
(2 Pins)
CN4502
(4 Pins)
CN4502
BASE P.C.B.
CN4501
FRONT JACK/OPERATION P.C.B.
S-VIDEO IN 3
VIDEO IN 3
AUDIO IN 3 L-CH
AUDIO IN 3 R-CH
CN3901
CN3102
(12 Pins)
CN3102
CN6701
CN3101
(7 Pins)
CN3101
COMPONENT IN 1
Y
PB
PR
COMPONENT AUDIO IN 1 L-CH
COMPONENT AUDIO IN 1 R-CH
COMPONENT IN 2
Y
PB
PR
COMPONENT AUDIO IN 2 L-CH
COMPONENT AUDIO IN 2 R-CH
HDMI AUDIO IN 1 L-CH
HDMI AUDIO IN 1 R-CH
D, E, F, G, H
HDMI AUDIO IN 2 L-CH
HDMI AUDIO IN 2 R-CH
S-VIDEO IN 1
VIDEO IN 1
AUDIO IN 1 L-CH
AUDIO IN 1 R-CH
S-VIDEO IN 2
VIDEO IN 2
AUDIO IN 2 L-CH
AUDIO IN 2 R-CH
VIDEO OUT
AUDIO OUT L-CH
AUDIO OUT R-CH
373
(14 Pins)
372
(3 Pins)
371
(2 Pins)
14
(20 Pins)
216
(8 Pins)
POWER P.C.B.
CN1514
CN1522
CN1516
CN1001
73
AC CORD
LAMP UNIT
115°C (239°F)
F001 THERMAL FUSE
CN1520
207
(2 Pins)
IRIS UNIT
IRIS MECHANISM UNIT
(6 Pins)
HALL-S P.C.B.
CN9701
CN9700
IRIS P.C.B.
(9 Pins)
272
CN9502
CN9500
CN9501
(5 Pins)
(NO CONNECTION)
CN2705
206
(7 Pins)
LCD DRIVE P.C.B.
CN2502
CN2704
CN2001
CN2002
CN2003
(36 Pins)
(36 Pins)
(36 Pins)
LCD / PRISM UNIT
LCD PANEL (RED)
LCD PANEL (GREEN)
LCD PANEL (BLUE)
FAN CASE UNIT
FAN 1
FAN 2
FAN 3
CN2701
(3 Pins)
CN2702
(3 Pins)
CN2703
(3 Pins)
CN2303
(8 Pins)
CN2303 USED FOR ADJUSTMENT OF LCD DRIVE P.C.B.
CN2501
P2912
(2 Pins)
COVER SWITCH P.C.B.
P2912
CN2301
762
(2 Pins)
THERMISTOR 2 P.C.B.
P2821

INTERCONNECTION SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16
/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

13.3. MAIN SCHEMATIC DIAGRAMS

MAIN I SCHEMATIC DIAGRAM

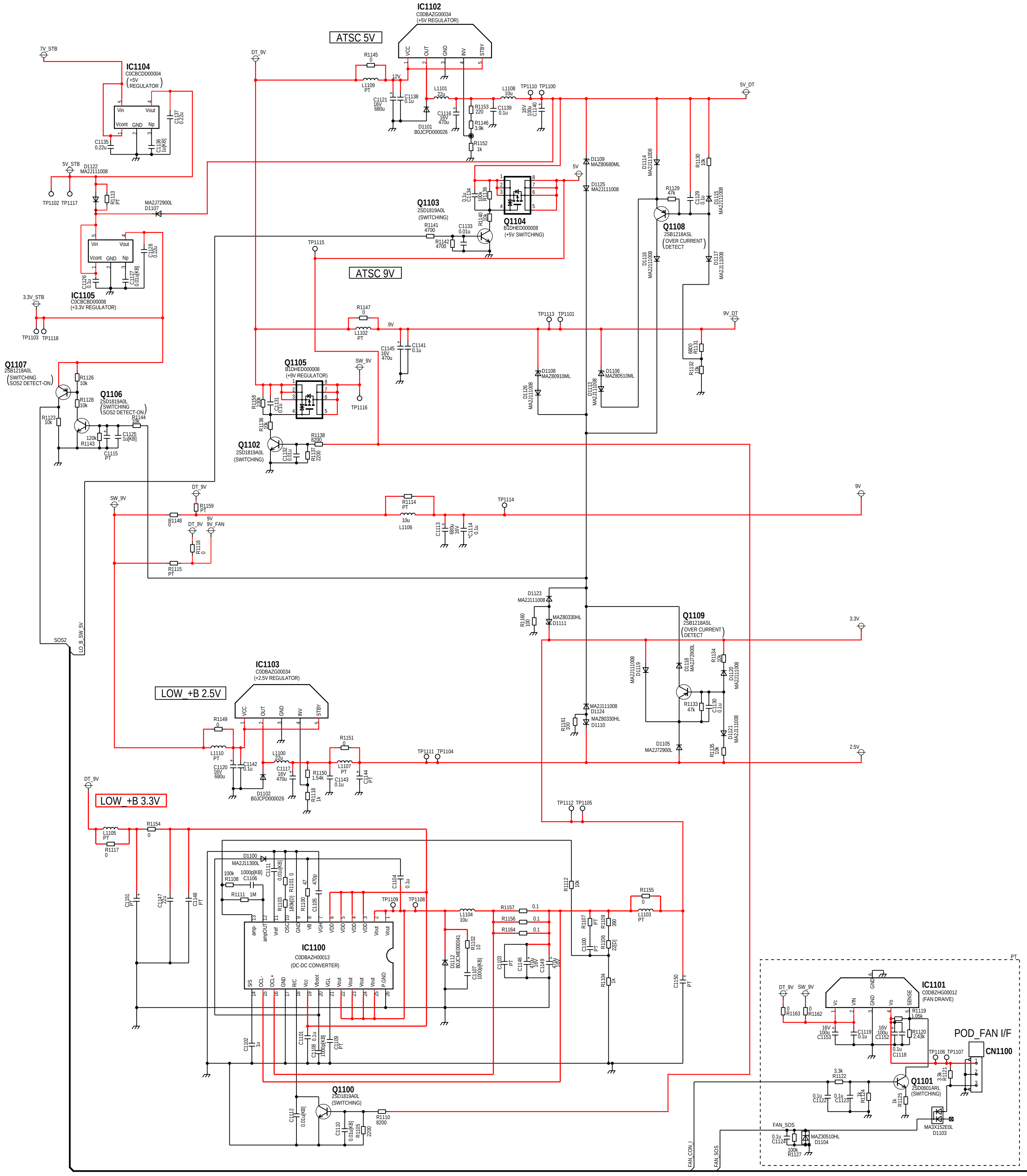
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

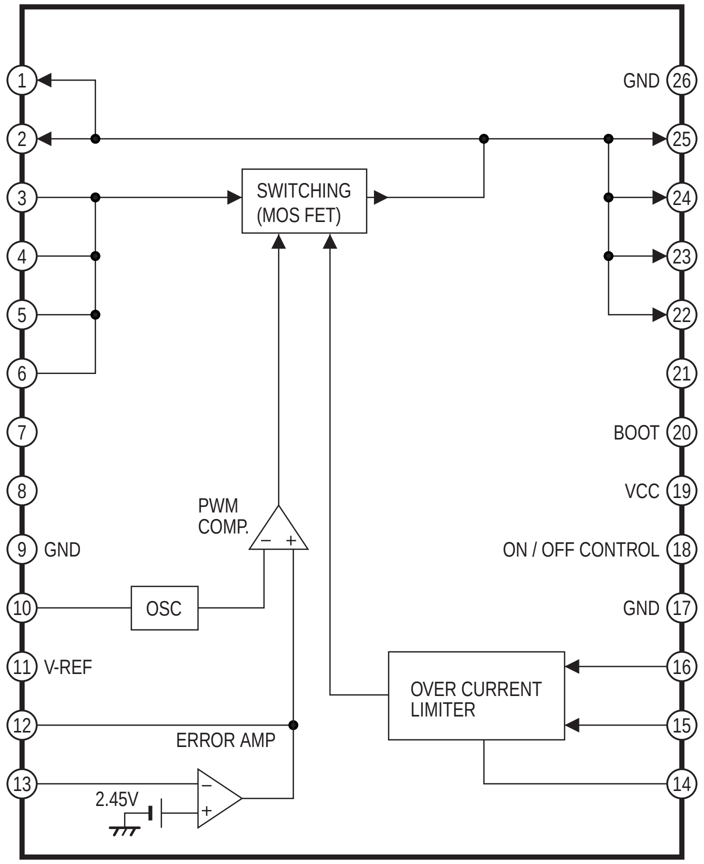
COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT



IC1102
C0DBAZG00034
(+5V REGULATOR)
ATSC 5V
IC1104
C0CBCDD00004
(+5V REGULATOR)
IC1105
C0CBCBD00008
(+3.3V REGULATOR)
Q1103
2SD1819A0L
(SWITCHING)
Q1104
B1DHED000008
(+5V SWITCHING)
Q1108
2SB1218ASL
(OVER CURRENT DETECT)
ATSC 9V
Q1105
B1DHED000008
(+9V REGULATOR)
Q1107
2SB1218A0L
(SWITCHING SOS2 DETECT-ON)
Q1106
2SD1819A0L
(SWITCHING SOS2 DETECT-ON)
Q1102
2SD1819A0L
(SWITCHING)
Q1109
2SB1218ASL
(OVER CURRENT DETECT)
IC1103
C0DBAZG00034
(+2.5V REGULATOR)
LOW +B 2.5V
LOW +B 3.3V
IC1100
C0DBAZH00013
(DC-DC CONVERTER)
Q1100
2SD1819A0L
(SWITCHING)
IC1101
C0DBZHG00012
(FAN DRAIVE)
POD_FAN I/F
CN1100
Q1101
2SD0601ARL
(SWITCHING)
7V_STB
5V_STB
3.3V_STB
DT_9V
5V_DT
9V_DT
SW_9V
9V
3.3V
2.5V
SOS2
FAN_CON_I
FAN_SOS
A

IC1100 DETAIL BLOCK DIAGRAM



1
2
3
4
5
6
7
8
9 GND
10
11 V-REF
12
13
GND 26
25
24
23
22
21
BOOT 20
VCC 19
ON / OFF CONTROL 18
GND 17
16
15
14
SWITCHING (MOS FET)
PWM COMP.
OSC
OVER CURRENT LIMITER
ERROR AMP
2.45V

LINK TO VOLTAGE CHART

MAIN II SCHEMATIC DIAGRAM

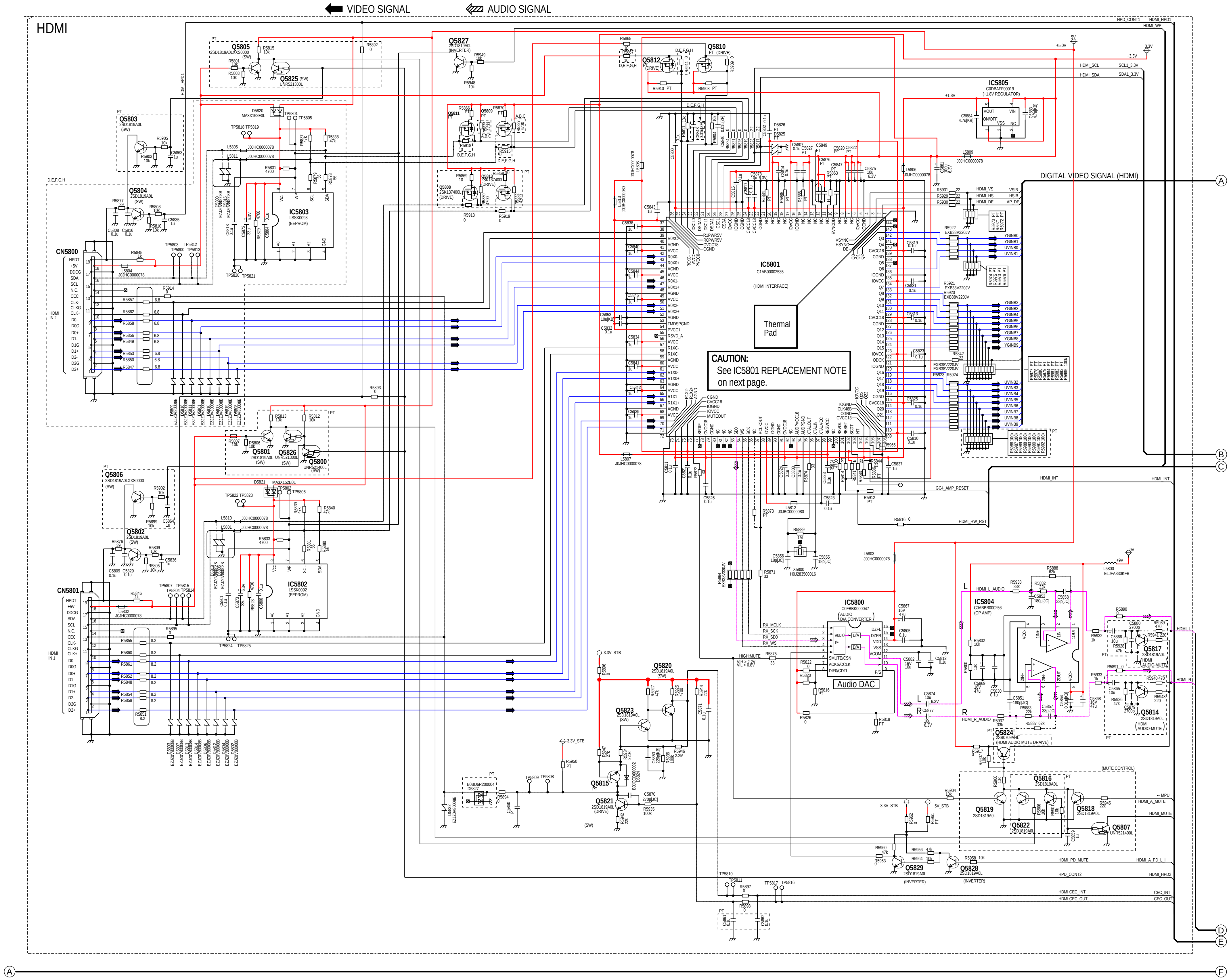
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART
OF MODELS & MARKS

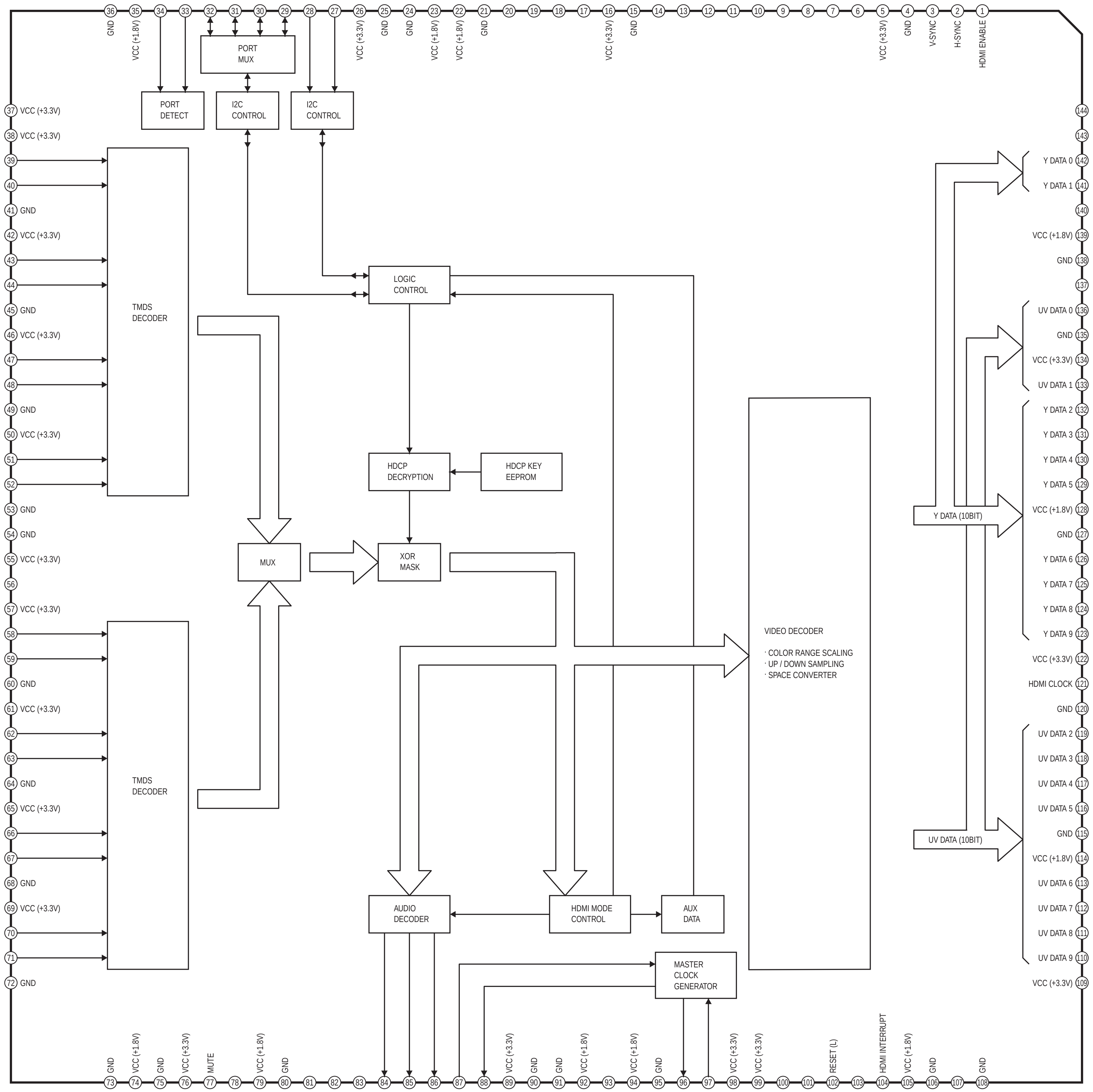
MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
AUDIO SIGNAL
HDMI
CN5800
CN5801
HDMI IN 2
HDMI IN 1
IC5801
C1AB00002535
(HDMI INTERFACE)
Thermal Pad
CAUTION:
See IC5801 REPLACEMENT NOTE on next page.
IC5802
IC5803
IC5800
C0FBBK000047
(AUDIO D/A CONVERTER)
Audio DAC
IC5804
(OP AMP)
IC5805
(+1.8V REGULATOR)
DIGITAL VIDEO SIGNAL (HDMI)
Q5805
Q5825
Q5827
Q5812
Q5810
Q5803
Q5804
Q5801
Q5826
Q5800
Q5806
Q5802
Q5820
Q5823
Q5815
Q5821
Q5817
Q5814
Q5824
Q5816
Q5819
Q5818
Q5822
Q5807
Q5829
Q5828
(MUTE CONTROL)
HDMI_L_AUDIO
HDMI_R_AUDIO
HDMI_INT
HDMI_HW_RST
HDMI_A_MUTE
HDMI_MUTE
HDMI_PD_MUTE
HDMI_A_PD_L
HPD_CONT2
HDMI_HPD2
HDMI CEC_IN
HDMI CEC_OUT
CEC_IN
CEC_OUT
A
B
C
D
E
F

LINK TO VOLTAGE CHART

LSJB3211
MAIN II SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

IC5801 DETAIL BLOCK DIAGRAM


PORT MUX
PORT DETECT
I2C CONTROL
I2C CONTROL
LOGIC CONTROL
TMDS DECODER
TMDS DECODER
MUX
XOR MASK
HDCP DECRYPTION
HDCP KEY EEPROM
VIDEO DECODER
· COLOR RANGE SCALING
· UP / DOWN SAMPLING
· SPACE CONVERTER
Y DATA (10BIT)
UV DATA (10BIT)
AUDIO DECODER
HDMI MODE CONTROL
AUX DATA
MASTER CLOCK GENERATOR
36 GND
35 VCC (+1.8V)
26 VCC (+3.3V)
25 GND
24 GND
23 VCC (+1.8V)
22 VCC (+1.8V)
21 GND
16 VCC (+3.3V)
15 GND
5 VCC (+3.3V)
4 GND
3 V-SYNC
2 H-SYNC
1 HDMI ENABLE
37 VCC (+3.3V)
38 VCC (+3.3V)
41 GND
42 VCC (+3.3V)
45 GND
46 VCC (+3.3V)
49 GND
50 VCC (+3.3V)
53 GND
54 GND
55 VCC (+3.3V)
57 VCC (+3.3V)
60 GND
61 VCC (+3.3V)
64 GND
65 VCC (+3.3V)
68 GND
69 VCC (+3.3V)
72 GND
73 GND
74 VCC (+1.8V)
75 GND
76 VCC (+3.3V)
77 MUTE
79 VCC (+1.8V)
80 GND
89 VCC (+3.3V)
90 GND
91 GND
92 VCC (+1.8V)
94 VCC (+1.8V)
95 GND
98 VCC (+3.3V)
99 VCC (+3.3V)
102 RESET (L)
104 HDMI INTERRUPT
105 VCC (+1.8V)
106 GND
108 GND
Y DATA 0 142
Y DATA 1 141
VCC (+1.8V) 139
GND 138
UV DATA 0 136
GND 135
VCC (+3.3V) 134
UV DATA 1 133
Y DATA 2 132
Y DATA 3 131
Y DATA 4 130
Y DATA 5 129
VCC (+1.8V) 128
GND 127
Y DATA 6 126
Y DATA 7 125
Y DATA 8 124
Y DATA 9 123
VCC (+3.3V) 122
HDMI CLOCK 121
GND 120
UV DATA 2 119
UV DATA 3 118
UV DATA 4 117
UV DATA 5 116
GND 115
VCC (+1.8V) 114
UV DATA 6 113
UV DATA 7 112
UV DATA 8 111
UV DATA 9 110
VCC (+3.3V) 109

IC5801 REPLACEMENT NOTE

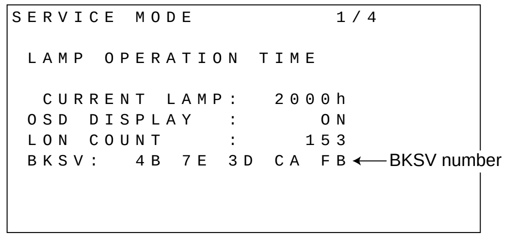
CAUTION:
Whenever IC5801 is replaced, record the BKSV number in the BKSV list along with the serial number of the set.

BKSV list (example)

Date	Serial number	BKSV number
4/25/2006	H6AA50050	B03A59CD66

To display the BKSV number:

1) Press the TV/VIDEO key on the remote to select the HDMI input in power on condition. Then, turn off the power.
2) Enter the Service Mode.
3) Connect the HDMI interface to the HDMI input terminal.
   Note:
   When using the DVI interface, a DVI-HDMI conversion cable (e.g., TY-SCH03DH: sold by Panasonic) can be used.
4) Input signal from the HDMI interface. Then, the BKSV number will be displayed and switched to new one.



```
SERVICE MODE          1/4

 LAMP OPERATION TIME

  CURRENT LAMP:   2000h
 OSD DISPLAY  :     ON
 LON COUNT    :    153
 BKSV:  4B 7E 3D CA FB
```

BKSV number

<Service Mode (1/4)>

CAUTION:
The BKSV number will not be displayed correctly if no signal has been input.
Therefore, be sure that you are reading the new number that was switched to with the input signal in power on condition.
Be sure to record the BKSV number in the BKSV list after switching, and ignore the BKSV number displayed before switching.

MAIN III SCHEMATIC DIAGRAM

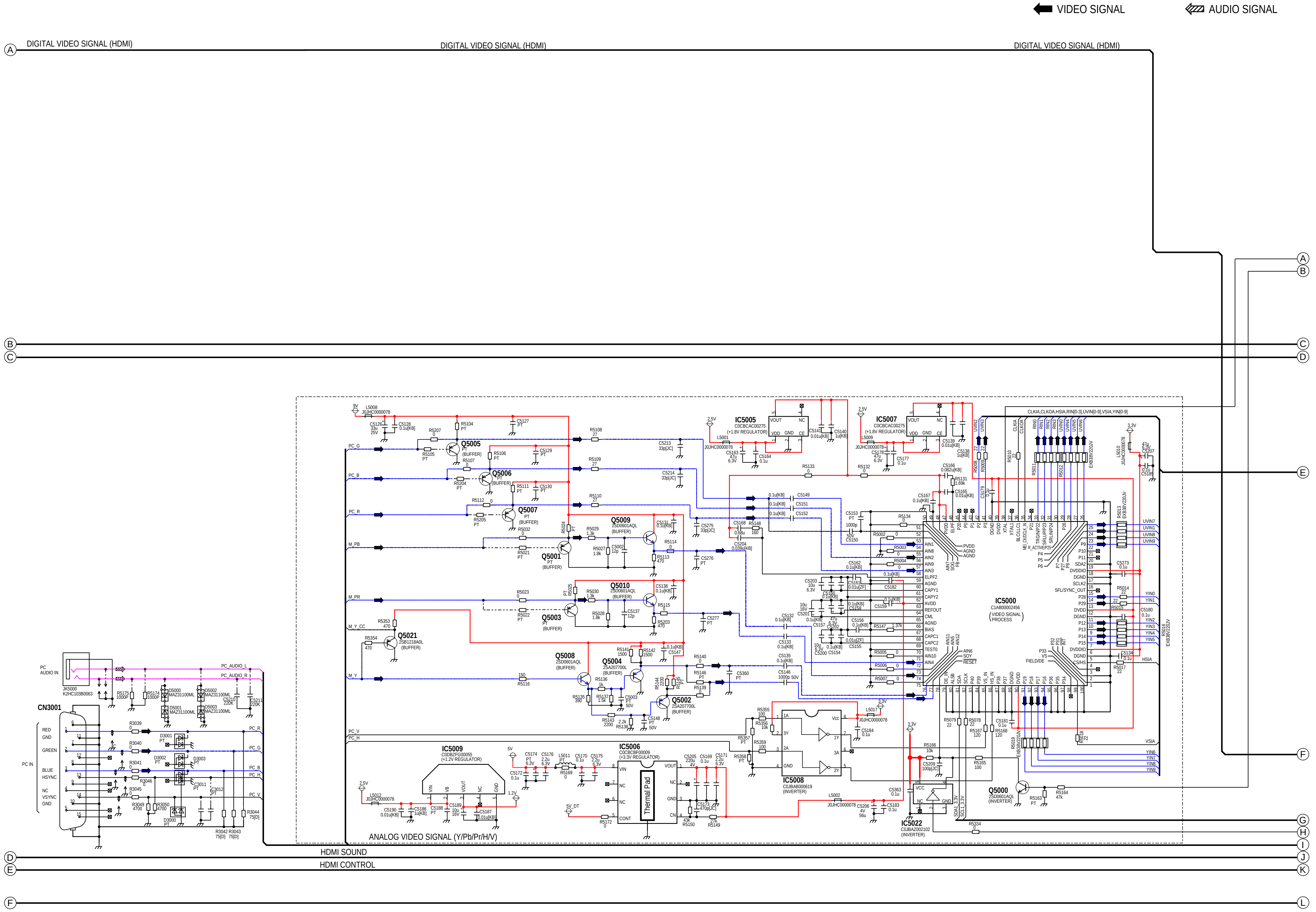
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
AUDIO SIGNAL
DIGITAL VIDEO SIGNAL (HDMI)
DIGITAL VIDEO SIGNAL (HDMI)
DIGITAL VIDEO SIGNAL (HDMI)
A
B
C
D
E
F
G
H
I
J
K
L
IC5005
C0CBCAC00275
(+1.8V REGULATOR)
IC5007
C0CBCAC00275
(+1.8V REGULATOR)
IC5000
C1AB00002456
(VIDEO SIGNAL PROCESS)
IC5009
C0DBZFG00055
(+1.2V REGULATOR)
IC5006
C0CBCBF00009
(+3.3V REGULATOR)
IC5008
C0JBAB000619
(INVERTER)
IC5022
C0JBAZ002102
(INVERTER)
Q5005
(BUFFER)
Q5006
(BUFFER)
Q5007
(BUFFER)
Q5009
2SD0601AQL
(BUFFER)
Q5001
(BUFFER)
Q5010
2SD0601AQL
(BUFFER)
Q5003
(BUFFER)
Q5021
2SB1218A0L
(BUFFER)
Q5008
2SD0601AQL
(BUFFER)
Q5004
2SA2070OL
(BUFFER)
Q5002
2SA2070OL
(BUFFER)
Q5000
2SD0601AQL
(INVERTER)
CN3001
JK5000
K2HC103B0063
PC AUDIO IN
PC IN
RED
GND
GREEN
BLUE
HSYNC
NC
VSYNC
GND
PC_AUDIO_L
PC_AUDIO_R
PC_R
PC_G
PC_B
PC_H
PC_V
PC_G
PC_B
PC_R
M_PB
M_PR
M_Y_CC
M_Y
Thermal Pad
CLKIA,CLKOA,HSIA,RIN[0-3],UVIN[0-9],VSIA,YIN[0-9]
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
HDMI SOUND
HDMI CONTROL

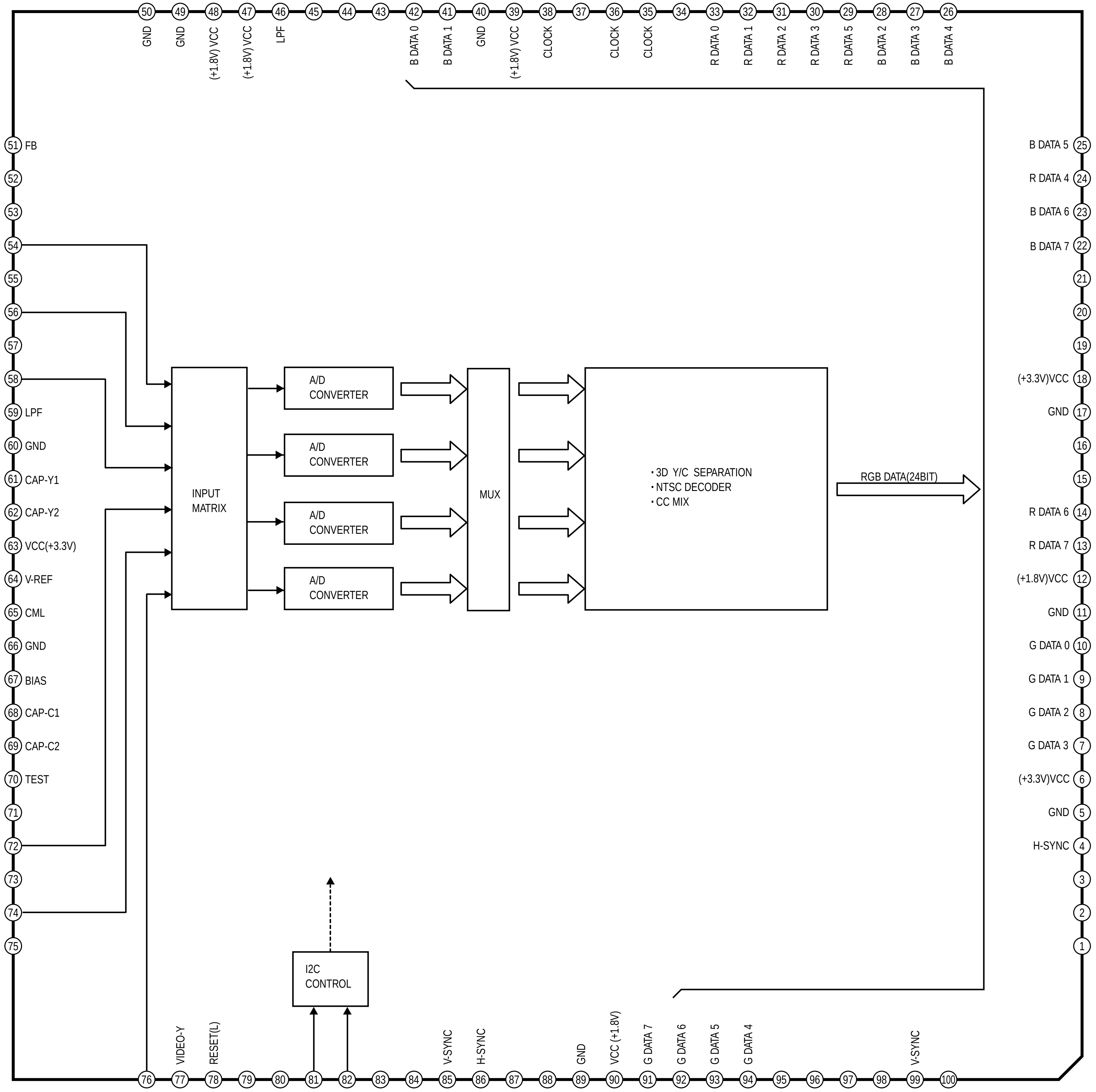
LINK TO VOLTAGE CHART

LSJB3211

MAIN III SCHEMATIC DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

IC5000 DETAIL BLOCK DIAGRAM


50 GND
49 GND
48 (+1.8V) VCC
47 (+1.8V) VCC
46 LPF
45
44
43
42 B DATA 0
41 B DATA 1
40 GND
39 (+1.8V) VCC
38 CLOCK
37
36 CLOCK
35 CLOCK
34
33 R DATA 0
32 R DATA 1
31 R DATA 2
30 R DATA 3
29 R DATA 5
28 B DATA 2
27 B DATA 3
26 B DATA 4
51 FB
52
53
54
55
56
57
58
59 LPF
60 GND
61 CAP-Y1
62 CAP-Y2
63 VCC(+3.3V)
64 V-REF
65 CML
66 GND
67 BIAS
68 CAP-C1
69 CAP-C2
70 TEST
71
72
73
74
75
INPUT MATRIX
A/D CONVERTER
A/D CONVERTER
A/D CONVERTER
A/D CONVERTER
MUX
・3D Y/C SEPARATION
・NTSC DECODER
・CC MIX
RGB DATA(24BIT)
I2C CONTROL
B DATA 5 25
R DATA 4 24
B DATA 6 23
B DATA 7 22
21
20
19
(+3.3V)VCC 18
GND 17
16
15
R DATA 6 14
R DATA 7 13
(+1.8V)VCC 12
GND 11
G DATA 0 10
G DATA 1 9
G DATA 2 8
G DATA 3 7
(+3.3V)VCC 6
GND 5
H-SYNC 4
3
2
1
76
77 VIDEO-Y
78 RESET(L)
79
80
81
82
83
84
85 V-SYNC
86 H-SYNC
87
88
89 GND
90 VCC (+1.8V)
91 G DATA 7
92 G DATA 6
93 G DATA 5
94 G DATA 4
95
96
97
98
99 V-SYNC
100

MAIN IV SCHEMATIC DIAGRAM

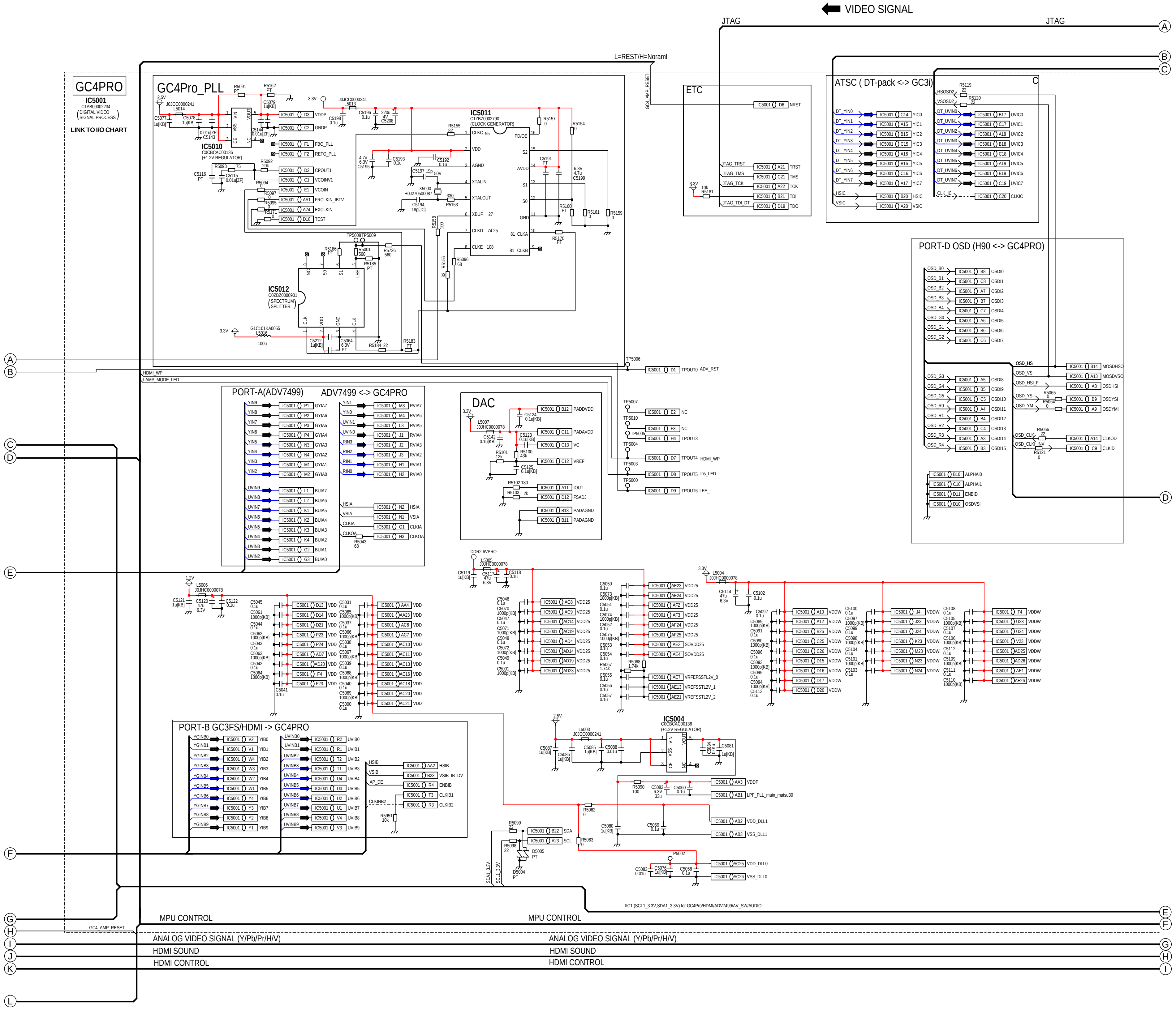
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

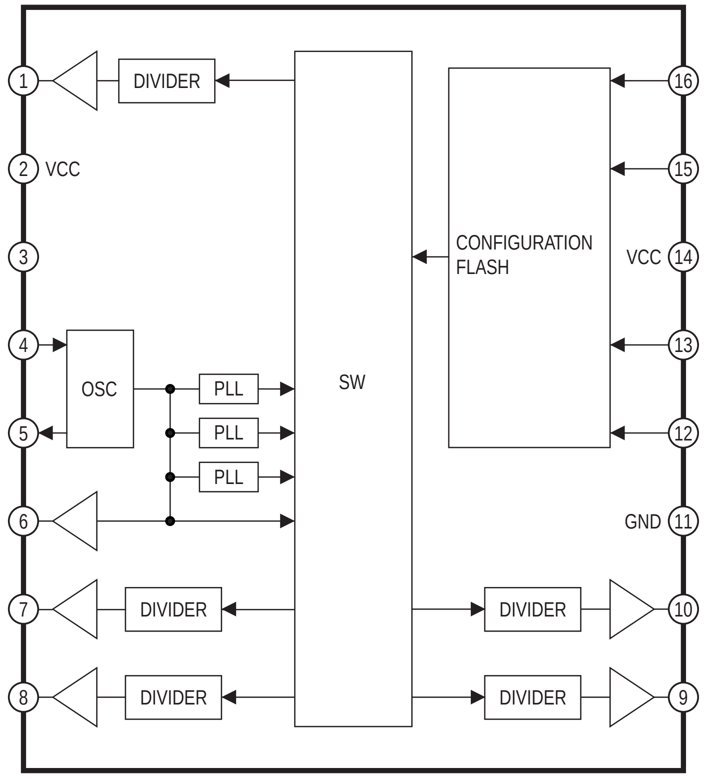
NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
JTAG
JTAG
L=REST/H=Noraml
GC4PRO
IC5001
C1AB00002234
(DIGITAL VIDEO SIGNAL PROCESS)
LINK TO I/O CHART
GC4Pro_PLL
IC5010
IC5011
C1ZBZ0002790
(CLOCK GENERATOR)
IC5012
(SPECTRUM SPLITTER)
ETC
ATSC (DT-pack <-> GC3i)
PORT-D OSD (H90 <-> GC4PRO)
PORT-A(ADV7499)
ADV7499 <-> GC4PRO
DAC
PORT-B GC3FS/HDMI -> GC4PRO
IC5004
C0CBCAC00136
(+1.2V REGULATOR)
MPU CONTROL
MPU CONTROL
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
HDMI SOUND
HDMI SOUND
HDMI CONTROL
HDMI CONTROL
A
B
C
D
E
F
G
H
I
J
K
L

IC5011 DETAIL BLOCK DIAGRAM


1
DIVIDER
16
2 VCC
15
3
CONFIGURATION FLASH
VCC 14
4
13
OSC
PLL
SW
5
PLL
12
PLL
6
GND 11
7
DIVIDER
DIVIDER
10
8
DIVIDER
DIVIDER
9

LINK TO VOLTAGE CHART

I/O CHART OF IC5001 (1/2)

Pin No.	I/O	Signal Name	Description
A1	-	GND	GND
A2	-	GND	GND
A3	I	OSDI14	OSD-R DATA 3
A4	I	OSDI11	OSD-R DATA 0
A5	I	OSDI8	OSD-G DATA 3
A6	I	OSDI5	OSD-G DATA 0
A7	I	OSDI2	OSD-B DATA 2
A8	I	OSDHSI	OSD H-SYNC
A9	I	OSDYMI	OSD-YM
A10	I	VDDW	+3.3V
A11	-	IOUT	(Not used)
A12	I	VDDW	+3.3V
A13	O	MOSDVSC	OSD V-SYNC
A14	O	CLKOD	OSD-CLOCK
A15	I	YIC1	DT Y DATA 1
A16	I	YIC4	DT Y DATA 4
A17	I	YIC7	DTY DATA 7
A18	I	UVIC2	DT UV DATA 2
A19	I	UVIC5	DT UV DATA 5
A20	I	VSIC	DT V-SYNC
A21	I	TRST	TEST RESET
A22	I	TCK	TEST CLOCK
A23	I	SCL	I2C SERIAL CLOCK
A24	I	EXCLKIN	FREERUN CLOCK
A25	-	GND	GND
A26	-	GND	GND
B1	-	GND	GND
B2	-	GND	GND
B3	I	OSDI15	OSD-R DATA 4
B4	I	OSDI12	OSD-R DATA 1
B5	I	OSDI9	OSD-G DATA 4
B6	I	OSDI6	OSD-G DATA 1
B7	I	OSDI3	OSD-B DATA 3
B8	I	OSDI0	OSD-B DATA 0
B9	I	OSDYSI	OSD-YS
B10	-	ALPHAI0	(Not used)
B11	-	PADAGND	GND
B12	I	PADDVDD	+3.3V
B13	-	PADAGND	GND
B14	O	MOSDHSC	OSD H-SYNC
B15	I	YIC2	DT Y DATA 2
B16	I	YIC5	DT Y DATA 5
B17	I	UVIC0	DT UV DATA 0
B18	I	UVIC3	DT UV DATA 3
B19	I	UVIC6	DT UV DATA 6
B20	I	HSIC	DT H-SYNC
B21	I	TDI	TEST DATA
B22	I/O	SDA	I2C SERIAL DATA
B23	I	VSIB	HDMI V-SYNC
B24	-	GND	GND
B25	-	GND	GND
B26	I	VDDW	+3.3V
C1	I	VCOINV1	VCO
C2	-	GNDP	GND
C3	-	GND	GND
C4	I	OSDI13	OSD-R DATA 2
C5	I	OSDI10	OSD-G DATA 5
C6	I	OSDI7	OSD-G DATA 2
C7	I	OSDI4	OSD-B DATA 4
C8	I	OSDI1	OSD-B DATA 1
C9	I	CLKID	OSD-CLOCK
C10	-	ALPHAI1	(Not used)
C11	I	PADAVDD	+3.3V
C12	I	VREF	V-REF
C13	-	VG	(Not used)

Pin No.	I/O	Signal Name	Description
C14	I	YIC0	DT Y DATA 0
C15	I	YIC3	DT Y DATA 3
C16	I	YIC6	DT Y DATA 6
C17	I	UVIC1	DT UV DATA 1
C18	I	UVIC4	DT UV DATA 4
C19	I	UVIC7	DT UV DATA 7
C20	I	CLKIC	DT-CLOCK
C21	I	TMS	TEST MODE SELECT
C22	-	GND	GND
C23	-	GND	GND
C24	-	GND	GND
C25	I	VDDW	+3.3V
C26	I	VDDW	+3.3V
D1	O	TPOUT0	RESET
D2	O	CPOUT1	CHARGE PUMP
D3	I	VDDP	+1.2V
D4	-	GND	GND
D5	-	GND	GND
D6	I	NRST	RESET(L)
D7	O	TPOUT4	HDMI WRITE PROTECT
D8	O	TPOUT5	IRIS LED ON(H)
D9	O	TPOUT6	LEE(L)
D10	-	OSDVSI	(Not used)
D11	-	ENBID	(Not used)
D12	-	FSADJ	(Not used)
D13	I	VDD	+1.2V
D14	I	VDD	+1.2V
D15	I	VDDW	+3.3V
D16	I	VDDW	+3.3V
D17	I	VDDW	+3.3V
D18	-	TEST	(Not used)
D19	O	TDO	TEST DATA
D20	I	VDDW	+3.3V
D21	I	VDD	+1.2V
D22	-	GND	GND
D23	-	GND	GND
D24	-	GND	GND
D25	O	HSOE	H-SYNC
D26	O	VSOE	V-SYNC
E1	I	VCOIN	VCO
E2	-	TPOUT1	(Not used)
E3	-	GND	GND
E4	-	GND	GND
E23	-	GND	GND
E24	O	BOE8	B DATA 6
E25	O	BOE9	B DATA 7
E26	O	CLKOE	CLOCK
F1	-	FBO_PLL	(Not used)
F2	-	REFO_PLL	(Not used)
F3	-	TPOUT2	(Not used)
F4	I	VDD	+1.2V
F23	I	VDD	+1.2V
F24	O	BOE5	B DATA 3
F25	O	BOE6	B DATA 4
F26	O	BOE7	B DATA 5
G1	I	CLKIA	CLOCK
G2	I	BUIA1	B DATA 1
G3	I	BUIA0	B DATA 0
G4	-	GND	GND
G23	-	BOE1	(Not used)
G24	O	BOE2	B DATA 0
G25	O	BOE3	B DATA 1
G26	O	BOE4	B DATA 2
H1	I	RVIA1	R DATA 1
H2	I	RVIA0	R DATA 0

Pin No.	I/O	Signal Name	Description
H3	O	CLKOA	CLOCK
H4	-	TPOUT3	(Not used)
H23	O	GOE7	G DATA 5
H24	O	GOE8	G DATA 6
H25	O	GOE9	G DATA 7
H26	-	GOE0	(Not used)
J1	I	RVIA4	R DATA 4
J2	I	RVIA3	R DATA 3
J3	I	RVIA2	R DATA 2
J4	I	VDDW	+3.3V
J23	I	VDDW	+3.3V
J24	I	VDDW	+3.3V
J25	O	GOE5	G DATA 3
J26	O	GOE6	G DATA 4
K1	I	BUIA5	B DATA 5
K2	I	BUIA4	B DATA 4
K3	I	BUIA3	B DATA 3
K4	I	BUIA2	B DATA 2
K23	I	VDDW	+3.3V
K24	O	GOE2	G DATA 0
K25	O	GOE3	G DATA 1
K26	O	GOE4	G DATA 2
L1	I	BUIA7	B DATA 7
L2	I	BUIA6	B DATA 6
L3	I	RVIA5	R DATA 5
L4	-	GND	GND
L11	-	GND	GND
L12	-	GND	GND
L13	-	GND	GND
L14	-	GND	GND
L15	-	GND	GND
L16	-	GND	GND
L23	O	ROE8	R DATA 6
L24	O	ROE9	R DATA 7
L25	-	GOE0	(Not used)
L26	-	GOE1	(Not used)
M1	I	GYIA1	G DATA 1
M2	I	GYIA0	G DATA 0
M3	I	RVIA7	R DATA 7
M4	I	RVIA6	R DATA 6
M11	-	GND	GND
M12	-	GND	GND
M13	-	GND	GND
M14	-	GND	GND
M15	-	GND	GND
M16	-	GND	GND
M23	I	VDDW	+3.3V
M24	O	ROE5	R DATA 3
M25	O	ROE6	R DATA 4
M26	O	ROE7	R DATA 5
N1	I	VSIA	V-SYNC
N2	I	HSIA	H-SYNC
N3	I	GYIA3	G DATA 3
N4	I	GYIA2	G DATA 2
N11	-	GND	GND
N12	-	GND	GND
N13	-	GND	GND
N14	-	GND	GND
N15	-	GND	GND
N16	-	GND	GND
N23	I	VDDW	+3.3V
N24	I	VDDW	+3.3V
N25	O	ROE3	R DATA 1
N26	O	ROE4	R DATA 2
P1	I	GYIA7	G DATA 7

Pin No.	I/O	Signal Name	Description
P2	I	GYIA6	G DATA 6
P3	I	GYIA5	G DATA 5
P4	I	GYIA4	G DATA 4
P11	-	GND	GND
P12	-	GND	GND
P13	-	GND	GND
P14	-	GND	GND
P15	-	GND	GND
P16	-	GND	GND
P23	I	VDD	+1.2V
P24	I	VDD	+1.2V
P25	-	ROE1	(Not used)
P26	O	ROE2	R DATA 0
R1	I	UVIB1	HDMI UV DATA 1
R2	I	UVIB0	HDMI UV DATA 0
R3	I	CLKIB2	HDMI CLOCK
R4	I	ENBIB	HDMI ENABLE
R11	-	GND	GND
R12	-	GND	GND
R13	-	GND	GND
R14	-	GND	GND
R15	-	GND	GND
R16	-	GND	GND
R23	-	ALPHAO1	(Not used)
R24	-	OSDYMO	(Not used)
R25	-	OSDYSO	(Not used)
R26	-	ROE0	(Not used)
T1	I	UVIB3	HDMI UV DATA 3
T2	I	UVIB2	HDMI UV DATA 2
T3	-	CLKIB1	(Not used)
T4	I	VDDW	+3.3V
T11	-	GND	GND
T12	-	GND	GND
T13	-	GND	GND
T14	-	GND	GND
T15	-	GND	GND
T16	-	GND	GND
T23	-	OSDHSO	(Not used)
T24	-	CLKOF	(Not used)
T25	-	OSDO15	(Not used)
T26	-	ALPHAO0	(Not used)
U1	I	UVIB7	HDMI UV DATA 7
U2	I	UVIB6	HDMI UV DATA 6
U3	I	UVIB5	HDMI UV DATA 5
U4	I	UVIB4	HDMI UV DATA 4
U23	I	VDDW	+3.3V
U24	I	VDDW	+3.3V
U25	-	OSDO13	(Not used)
U26	-	OSDO14	(Not used)
V1	I	YIB1	HDMI Y DATA 1
V2	I	YIB0	HDMI Y DATA 0
V3	I	UVIB9	HDMI UV DATA 9
V4	I	UVIB8	HDMI UV DATA 8
V23	I	VDDW	+3.3V
V24	-	OSDO10	(Not used)
V25	-	OSDO11	(Not used)
V26	-	OSDO12	(Not used)
W1	I	YIB5	HDMI Y DATA 5
W2	I	YIB4	HDMI Y DATA 4
W3	I	YIB3	HDMI Y DATA 3
W4	I	YIB2	HDMI Y DATA 2
W23		OSDO6	
W24	-	OSDO7	(Not used)
W25	-	OSDO8	(Not used)
W26	-	OSDO9	(Not used)

I/O CHART OF IC5001 (2/2)

Pin No.	I/O	Signal Name	Description
Y1	I	YIB9	HDMI Y DATA 9
Y2	I	YIB8	HDMI Y DATA 8
Y3	I	YIB7	HDMI Y DATA 7
Y4	I	YIB6	HDMI Y DATA 6
Y23	-	OSDO2	(Not used)
Y24	-	OSDO3	(Not used)
Y25	-	OSDO4	(Not used)
Y26	-	OSDO5	(Not used)
AA1	I	FRCLKIN	FR CLOCK
AA2	I	HSIB	HDMI H-SYNC
AA3	I	VDDP	+1.2V
AA4	I	VDD	+1.2V
AA23	I	VDD	+1.2V
AA24	-	CLKID2	(Not used)
AA25	-	OSDO0	(Not used)
AA26	-	OSDO1	(Not used)
AB1	-	LPF_PLL	(Not used)
AB2	I	VDD_DLL1	+1.2V
AB3	-	VSS_DLL1	GND
AB4	-	GND	GND
AB23	-	GND	GND
AB24	-	GND	GND
AB25	-	OSDVS12	(Not used)
AB26	-	OSDHS12	(Not used)
AC1	O	A9	SDRAM ADDRESS 9
AC2	O	A4	SDRAM ADDRESS 4
AC3	O	A11	SDRAM ADDRESS 11
AC4	-	GND	GND
AC5	-	GND	GND
AC6	I	VDD	+1.2V
AC7	I	VDD	+1.2V
AC8	I	VDD25	+2.5V
AC9	I	VDD25	+2.5V
AC10	I	VDD	+1.2V
AC11	I	VDD	+1.2V
AC12	I/O	DQ2	SDRAM DATA 2
AC13	I	VDD	+1.2V
AC14	I	VDD25	+2.5V
AC15	-	FBCK	(Not used)
AC16	I	VDD	+1.2V
AC17	I/O	DQ27	SDRAM DATA 27
AC18	I	VDD	+1.2V
AC19	I	VDD25	+2.5V
AC20	I	VDD	+1.2V
AC21	I	VDD	+1.2V
AC22	-	GND	GND
AC23	-	GND	GND
AC24	-	GND	GND
AC25	I	VDD_DLL0	+1.2V
AC26	-	VSS_DLL0	GND
AD1	O	A3	SDRAM ADDRESS 3
AD2	O	A10	SDRAM ADDRESS 10
AD3	-	GND	GND
AD4	I	VDD25	+2.5V
AD5	O	A2	SDRAM ADDRESS 2
AD6	O	BA0	BANK 0
AD7	I	VDD	+1.2V
AD8	I/O	DQ23	SDRAM DATA 23
AD9	I/O	DQ20	SDRAM DATA 20
AD10	I/O	DQ18	SDRAM DATA 18
AD11	I/O	DQ7	SDRAM DATA 7
AD12	I/O	DQ4	SDRAM DATA 4
AD13	I/O	DQ1	SDRAM DATA 1
AD14	I	VDD25	+2.5V
AD15	O	NSDCLKO	SDRAM CLOCK
AD16	I/O	DQ29	SDRAM DATA 29
AD17	I/O	DQ24	SDRAM DATA 24
AD18	I/O	DQ13	SDRAM DATA 13
AD19	I	VDD25	+2.5V
AD20	I	VDD	+1.2V
AD21	I/O	DQ8	SDRAM DATA 8
AD22	O	A5	SDRAM ADDRESS 5
AD23	I	VDD25	+2.5V
AD24	-	GND	GND
AD25	I	VDDW	+3.3V
AD26	I	VDDW	+3.3V
AE1	I	VDDW	+3.3V
AE2	-	GND	GND
AE3	I	VDD25	+2.5V
AE4	I	VDD25	+2.5V
AE5	O	A0	SDRAM ADDRESS 0
AE6	O	RAS	ROAD ADDRESS STROBE
AE7	I	REFSSTL2	V-REF(+1.25V)
AE8	I/O	DQ22	SDRAM DATA 22
AE9	O	DQS2	SDRAM DATA STROBE 2
AE10	I/O	DQ17	SDRAM DATA 17
AE11	I/O	DQ6	SDRAM DATA 6
AE12	O	DQS0	SDRAM DATA STROBE 0
AE13	I	REFSSTL2	V-REF(+1.25V)
AE14	O	SDCLKO	SDRAM CLOCK
AE15	I/O	DQ30	SDRAM DATA 30
AE16	O	DQS3	SDRAM DATA STROBE 3
AE17	I/O	DQ25	SDRAM DATA 25
AE18	I/O	DQ14	SDRAM DATA 14
AE19	O	DQS1	SDRAM DATA STROBE 1
AE20	I/O	DQ10	SDRAM DATA 10
AE21	I	REFSSTL2	V-REF(+1.25V)
AE22	O	A7	SDRAM ADDRESS 7
AE23	I	VDD25	+2.5V
AE24	I	VDD25	+2.5V
AE25	-	GND	GND
AE26	I	VDDW	+3.3V
AF1	-	GND	GND
AF2	I	VDD25	+2.5V
AF3	I	VDD25	+2.5V
AF4	O	A1	SDRAM ADDRESS 1
AF5	O	BA1	BANK 1
AF6	O	WE	SDRAM WRITE ENABLE
AF7	O	CAS	COLUMN ADDRESS STROBE
AF8	I/O	DQ21	SDRAM DATA 21
AF9	I/O	DQ19	SDRAM DATA 19
AF10	I/O	DQ16	SDRAM DATA 16
AF11	I/O	DQ5	SDRAM DATA 5
AF12	I/O	DQ3	SDRAM DATA 3
AF13	I/O	DQ0	SDRAM DATA 0
AF14	O	SDCKE	SDRAM CKE
AF15	I/O	DQ31	SDRAM DATA 31
AF16	I/O	DQ28	SDRAM DATA 28
AF17	I/O	DQ26	SDRAM DATA 26
AF18	I/O	DQ15	SDRAM DATA 15
AF19	I/O	DQ12	SDRAM DATA 12
AF20	I/O	DQ11	SDRAM DATA 11
AF21	I/O	DQ9	SDRAM DATA 9
AF22	O	A8	SDRAM ADDRESS 8
AF23	O	A6	SDRAM ADDRESS 6
AF24	I	VDD25	+2.5V
AF25	I	VDD25	+2.5V
AF26	-	GND	GND

MAIN V SCHEMATIC DIAGRAM

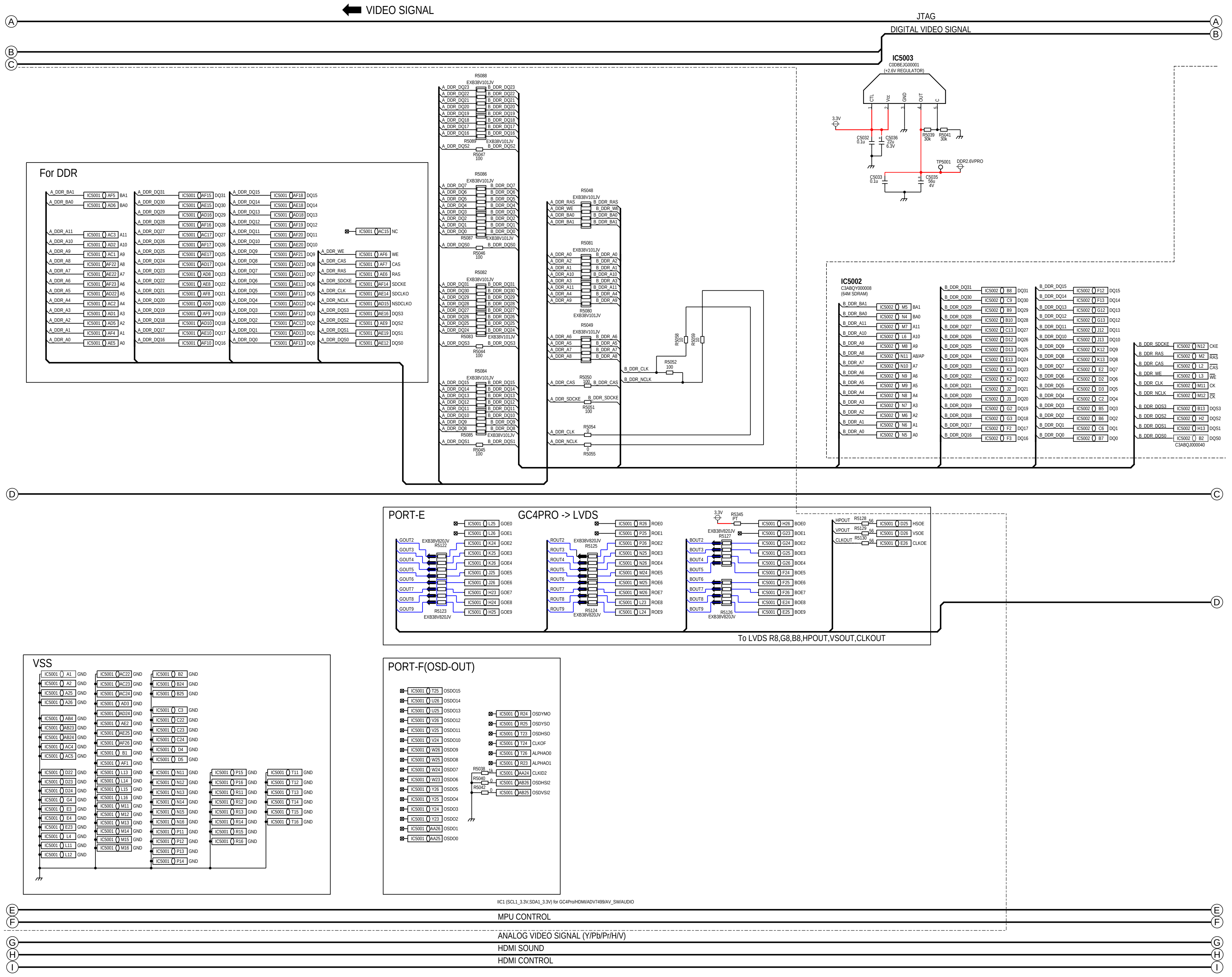
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
JTAG
DIGITAL VIDEO SIGNAL
A
B
C
D
E
F
G
H
I
IC5003
C0DBEJG00001
(+2.6V REGULATOR)
3.3V
DDR2.6VPRO
For DDR
IC5002
C3ABQY000008
(64M SDRAM)
C3ABQJ000040
R5088
EXB38V101JV
R5086
R5082
R5084
R5048
R5081
R5049
PORT-E
GC4PRO -> LVDS
To LVDS R8,G8,B8,HPOUT,VSOUT,CLKOUT
VSS
PORT-F(OSD-OUT)
IIC1 (SCL1_3.3V,SDA1_3.3V) for GC4Pro/HDMI/ADV7499/AV_SW/AUDIO
MPU CONTROL
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
HDMI SOUND
HDMI CONTROL

LINK TO VOLTAGE CHART

LSJB3211
MAIN V SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

MAIN VI SCHEMATIC DIAGRAM

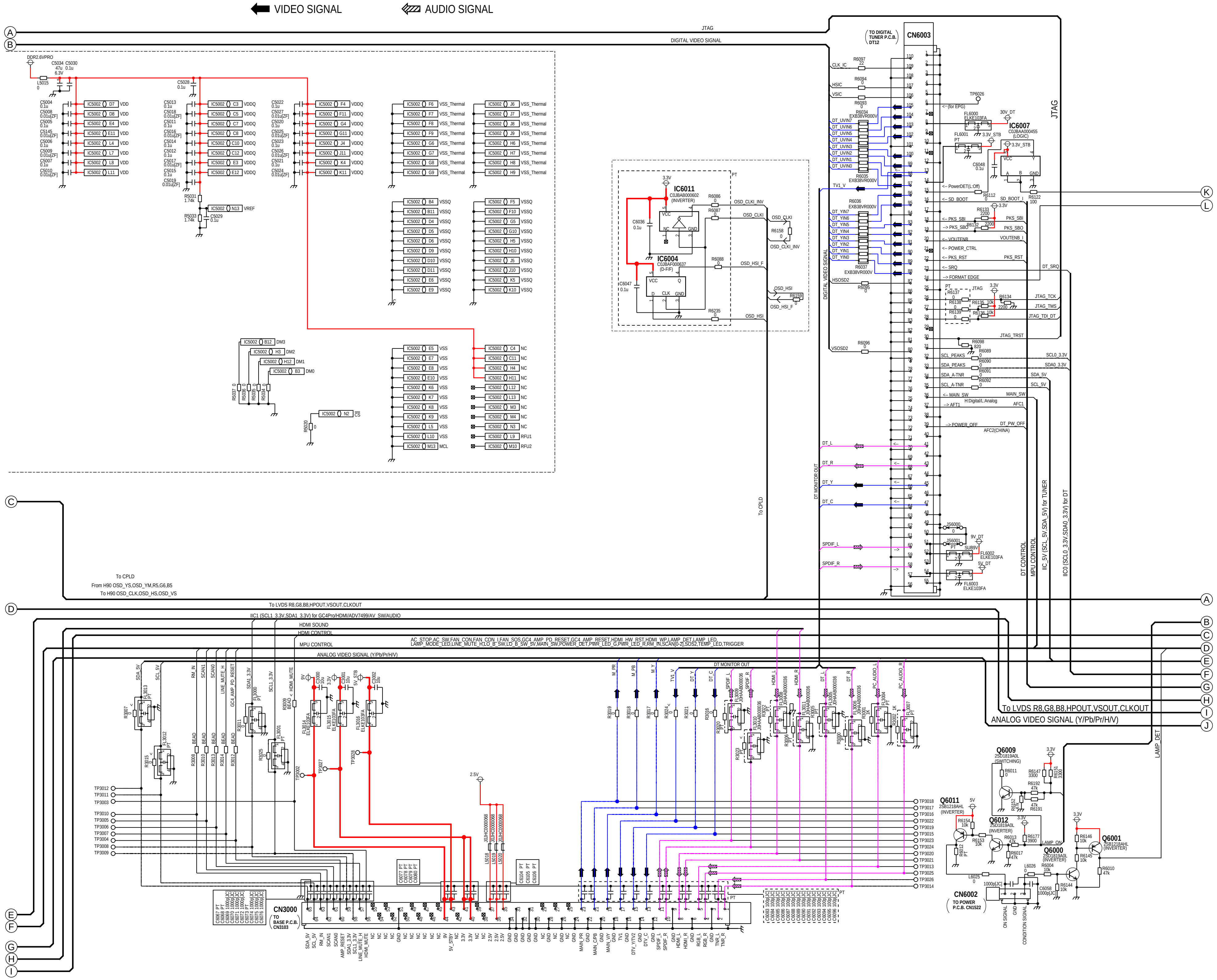
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
AUDIO SIGNAL
JTAG
DIGITAL VIDEO SIGNAL
CN6003
TO DIGITAL TUNER P.C.B. DT12
IC6011 C0JBAB000602 (INVERTER)
IC6004 C0JBAF000637 (D-F/F)
IC6007 C0JBAA000455 (LOGIC)
IC5002
To CPLD
From H90 OSD_YS,OSD_YM,R6,G6,B6
To H90 OSD_CLK,OSD_HS,OSD_VS
To LVDS R8,G8,B8,HPOUT,VSOUT,CLKOUT
IIC1 (SCL1_3.3V,SDA1_3.3V) for GC4Pro/HDMI/ADV7499/AV_SW/AUDIO
HDMI SOUND
HDMI CONTROL
MPU CONTROL
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
DT MONITOR OUT
DT CONTROL
MPU CONTROL
IIC_5V (SCL_5V,SDA_5V) for TUNER
IIC0 (SCL0_3.3V,SDA0_3.3V) for DT
LAMP_DET
CN3000
TO BASE P.C.B. CN3101
CN6002
TO POWER P.C.B. CN1522
Q6009 2SD1819A0L (SWITCHING)
Q6011 2SB1218AHL (INVERTER)
Q6012 2SD1819A0L (INVERTER)
Q6000 2SD1819A0L (INVERTER)
Q6001 2SB1218AHL (INVERTER)
A
B
C
D
E
F
G
H
I
J
K
L

LINK TO VOLTAGE CHART

MAIN VII SCHEMATIC DIAGRAM

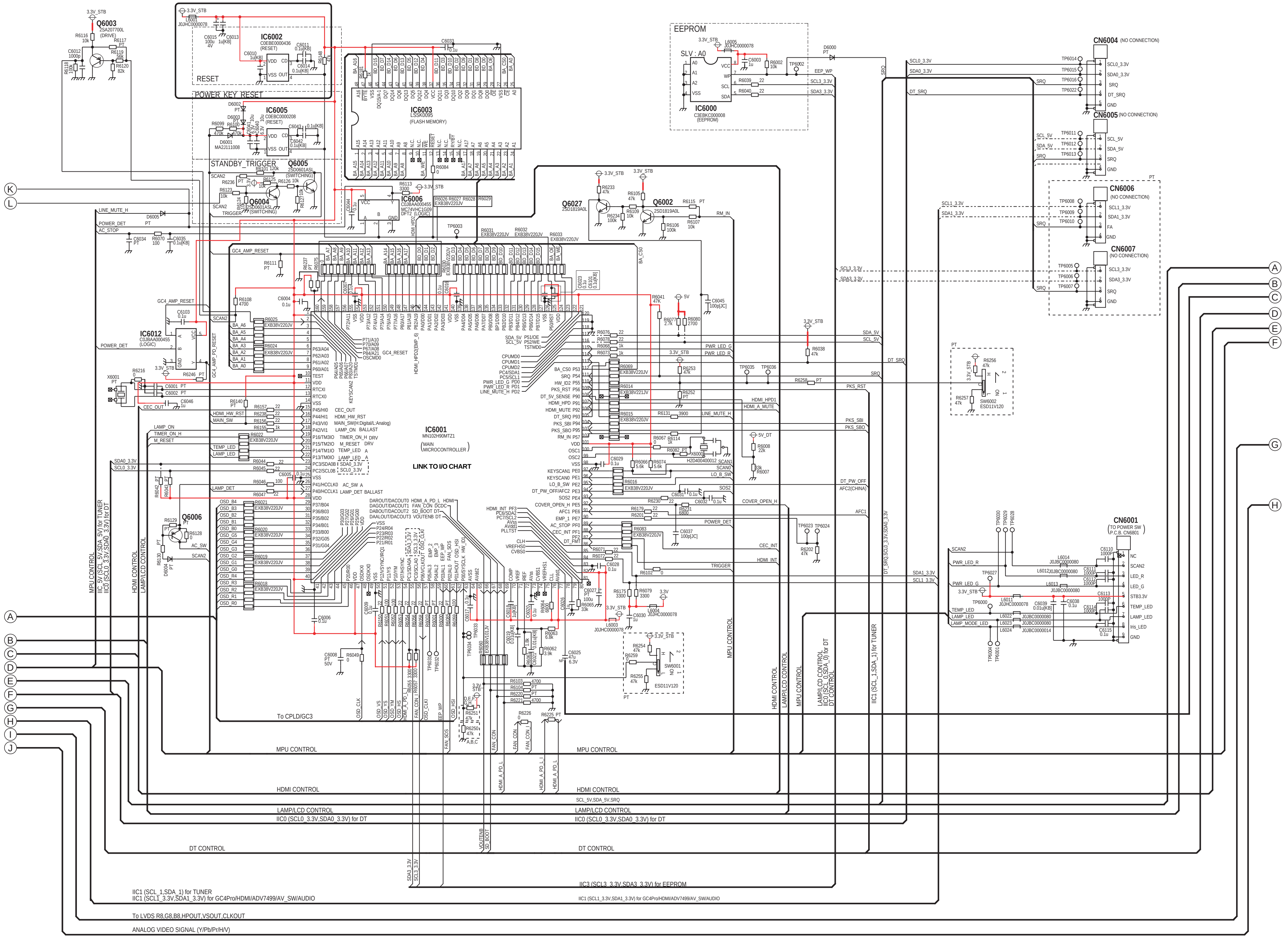
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


Q6003
IC6002 (RESET)
RESET
POWER_KEY_RESET
IC6005 (RESET)
IC6003 (FLASH MEMORY)
STANDBY_TRIGGER
Q6005
Q6004
IC6006
EEPROM
IC6000 (EEPROM)
CN6004 (NO CONNECTION)
CN6005 (NO CONNECTION)
CN6006 (NO CONNECTION)
CN6007 (NO CONNECTION)
Q6027
Q6002
IC6012 (LOGIC)
Q6006
IC6001 MN102H60MTZ1 (MAIN MICROCONTROLLER)
LINK TO I/O CHART
CN6001 (TO POWER SW P.C.B. CN6801)
SW6002
SW6001
To CPLD/GC3
MPU CONTROL
HDMI CONTROL
LAMP/LCD CONTROL
IIC0 (SCL0_3.3V,SDA0_3.3V) for DT
DT CONTROL
SCL_5V,SDA_5V,SRQ
IIC3 (SCL3_3.3V,SDA3_3.3V) for EEPROM
IIC1 (SCL_1,SDA_1) for TUNER
IIC1 (SCL1_3.3V,SDA1_3.3V) for GC4Pro/HDMI/AV7499/AV_SW/AUDIO
To LVDS R8,G8,B8,HPOUT,VSOUT,CLKOUT
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
A
B
C
D
E
F
G
H
I
J
K
L

LINK TO VOLTAGE CHART

LSJB3211

MAIN VII SCHEMATIC DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

I/O CHART OF IC6001

Pin No.	I/O	Port No.	Signal Name	Description
1	-	-	TSTMD1	(Not used)
2	I	P83	KEYSCAN2	KEY DATA 2
3	O	P66	A07	ADDRESS 7
4	O	P65	A06	ADDRESS 6
5	O	P64	A05	ADDRESS 5
6	O	P63	A04	ADDRESS 4
7	O	P62	A03	ADDRESS 3
8	O	P61	A02	ADDRESS 2
9	O	P60	A01	ADDRESS 1
10	-	-	TEST	(Not used)
11	I	-	VDD	VDD (+3.3V)
12	I	-	RTCXI	32.768kHz OSCILLATION
13	O	-	RTCXO	32.768kHz OSCILLATION
14	-	-	VSS	GND
15	O	P45	CEC_OUT	CEC
16	O	P44	HDMI_HW_RST	HDMI RESET(L)
17	O	P43	MAIN_SW	D/A SW(DIGITAL(L)/ANALOG(H))
18	O	P42	LAMP_ON	LAMP ON / OFF CONTROL (ON (H) / OFF (L))
19	O	P16	TIMER_ON_H	LAMP ON (H) / OFF (L)
20	O	P15	M_RESET	RESET(L)
21	O	P14	TEMP_LED	TEMP LED ON(H)
22	O	P13	LAMP_LED	LAMP LED ON(H)
23	I/O	PC3	SDA0B	I^2C SERVICE DATA
24	O	PC2	SCL0B	I^2C SERIAL CLOCK
25	-	-	VSS	GND
26	O	P41	AC_SW	AC POWER ON(H)
27	O	P40	LAMP_DET	LAMP STATUS(ON(H)/OFF(L))
28	I	-	VDD	VDD (+3.3V)
29	O	P37	BO4	OSD-B DATA 4
30	O	P36	BO3	OSD-B DATA 3
31	O	P35	BO2	OSD-B DATA 2
32	O	P34	BO1	OSD-B DATA 1
33	O	P33	BO0	OSD-B DATA 0
34	O	P32	GO5	OSD-G DATA 5
35	O	P31	GO4	OSD-G DATA 4
36	O	P30	GO3	OSD-G DATA 3
37	O	P27	GO2	OSD-G DATA 2
38	O	P26	GO1	OSD-G DATA 1
39	O	P25	GO0	OSD-G DATA 0
40	I	-	VDD	VDD (+3.3V)
41	-	-	VSS	GND
42	O	P24	RO4	OSD-R DATA 4
43	O	P23	RO3	OSD-R DATA 3
44	O	P22	RO2	OSD-R DATA 2
45	O	P21	RO1	OSD-R DATA 1
46	O	P20	RO0	OSD-R DATA 0
47	I	-	VDD	VDD (+3.3V)
48	I	-	OSDXI	OSD CLOCK
49	-	-	OSDXO	(Not used)
50	-	-	VSS	GND
51	I	P12	VSYNC	OSD V-SYNC
52	O	P11	YS	OSD-YS
53	O	P10	YM	OSD-YM
54	I	P07	HSYNC	OSD H-SYNC
55	I/O	PC1	SDA0A	I^2C SERIAL DATA 3
56	O	PC0	SCLA0	I^2C SERIAL CLOCK
57	O	P06	OSD_CLK1	OSD-CLOCK
58	-	P05	EMP_2	(Not used)
59	-	P04	EMP_3	(Not used)
60	O	P03	EEP_WP	EEPROM WRITE PROTECT
61	I	P02	FAN_SOS	FAN LOCK DETECT
62	O	P01	OSD_HSI	OSD H_SYNC
63	-	P00	HW_ID1	(Not used)
64	-	-	AVSS	GND
65	I	-	AVDD2	VDD (+3.3V)
66	O	-	VOUTENV	BUS SW ON(H) / OFF(L)
67	O	-	SD_BOOT	SD BOOT(H)
68	O	-	FAN_CONDCDC	FAN SPEED CONTROL
69	O	-	HDMI_A_PD_L	HDMI AUDIO (IC5800) POWER DOWN (L)
70	-	-	COMP	(Not used)
71	-	-	VREF	V-REF FOR IC6001
72	-	-	IREF	I-REF FOR IC6001
73	-	-	AVSS	GND
74	-	-	CVBS1	(Not used)
75	-	-	VREFHS1	(Not used)
76	-	-	CLL	(Not used)
77	I	-	AVDD1	VDD (+3.3V)
78	I	-	CVBS0	COMPOSITE VIDEO
79	-	-	VREFHS0	(Not used)
80	-	-	CLH	(Not used)
81	-	-	PLLTST	(Not used)
82	I	-	AVDD1	VDD (+3.3V)
83	-	-	AVSS	GND
84	O	PC7	SCL2	I^2C SERIAL CLOCK 0
85	I/O	PC6	SDA2	I^2C SERIAL DATA 0
86	I	PF3	HDMI_INT	HDMI INTERRUPT REQUEST
87	I	PF2	DT_FMT	STANDBY TRIGGER
88	I	PF1	CEC_INT	CEC INTERRUPT REQUEST
89	I	PF0	AC_STOP	AC STOP(L)
90	-	PE7	EMP_1	(Not used)
91	-	PE6	AFC1	(Not used)
92	I	PE5	COVER_OPEN_H	LAMP COVER OPEN(H) / CLOSE(L)
93	I	PE4	SOS2	OVER VOLTAGE / OVER CURRENT DETECT(H)
94	-	PE3	DT_PW_OFF	(Not used)
95	O	PE2	LO_B_SW	LOW+B ON(H)
96	I	PE1	KEYSCAN 0	KEY DATA 0
97	I	PE0	KEYSCAN 1	KEY DATA 1
98	-	-	VSS	GND
99	O	-	OSC2	4MHz OSCILLATION
100	I	-	OSC1	4MHz OSCILLATION
101	I	-	VDD	VDD (+3.3V)
102	I	P57	RM_IN	IR DATA
103	O	P95	PKS_SBO	ATSC SERIAL DATA 0
104	I	P94	PKS_SBI	ATSC SERIAL DATA 1
105	I	P93	DT_SRQ	DTV SERVICE REQUEST
106	O	P92	HDMI_MUTE	HDMI AUDIO MUTE(H)
107	I	P91	HDMI_HPD	HDMI HOT PLUG DETECT
108	I	P90	DT_5V_SENSE	+5V LINE DETECT
109	O	P56	PKS_RST	DTV RESET(L)
110	-	P55	HW_ID2	(Not used)
111	I	P54	SRQ	SERVICE REQUEST
112	O	P53	BA_CSO	IC6003 CS (L)
113	O	PD2	LINE_MUTE_H	LINE AUDIO MUTE(H)
114	O	PD1	PWR_LED_R	POWER LED(RED) ON(L)
115	O	PD0	PWR_LED_G	POWER LED(GREEN) ON(L)
116	O	PC5	SCL1	I^2C SERIAL CLOCK 1
117	I/O	PC4	SDA1	I^2C SERIAL DATA 1
118	-	-	CPUMD2	(Not used)
119	-	-	CPUMD1	(Not used)
120	-	-	CPUMD0	(Not used)
121	-	-	TSTMD0	(Not used)
122	O	P52	WE	IC6003 WRITE ENABLE (L)
123	O	P51	OE	IC6003 OUTPUT ENABLE (L)
124	I	-	VDD	VDD (+3.3V)
125	I	P50	/RST	RESET (L)
126	-	-	VSS	GND
127	I/O	PB7	D15	DATA 15
128	I/O	PB6	D14	DATA 14
129	I/O	PB5	D13	DATA 13
130	I/O	PB4	D12	DATA 12
131	I/O	PB3	D11	DATA 11
132	I/O	PB2	D10	DATA 10
133	I/O	PB1	D09	DATA 9
134	I/O	PB0	D08	DATA 8
135	I/O	PA7	D07	DATA 7
136	I/O	PA6	D06	DATA 6
137	I/O	PA5	D05	DATA 5
138	I/O	PA4	D04	DATA 4
139	-	-	VSS	GND
140	I	-	VDD	VDD (+3.3V)
141	I/O	PA3	D03	DATA 3
142	I/O	PA2	D02	DATA 2
143	I/O	PA1	D01	DATA 1
144	I/O	PA0	D00	DATA 0
145	-	P82	A19	(Not used)
146	O	P81	A18	ADDRESS 18
147	O	P80	A17	ADDRESS 17
148	O	P77	A16	ADDRESS 16
149	O	P76	A15	ADDRESS 15
150	O	P75	A14	ADDRESS 14
151	O	P74	A13	ADDRESS 13
152	O	P73	A12	ADDRESS 12
153	I	-	VDD	VDD (+3.3V)
154	-	-	VSS	GND
155	O	P72	A11	ADDRESS 11
156	O	P71	A10	ADDRESS 10
157	O	P70	A09	ADDRESS 9
158	O	P67	A08	ADDRESS 8
159	O	P84	A21	RESET(L)
160	-	-	OSCMD0	(Not used)

MAIN VIII SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

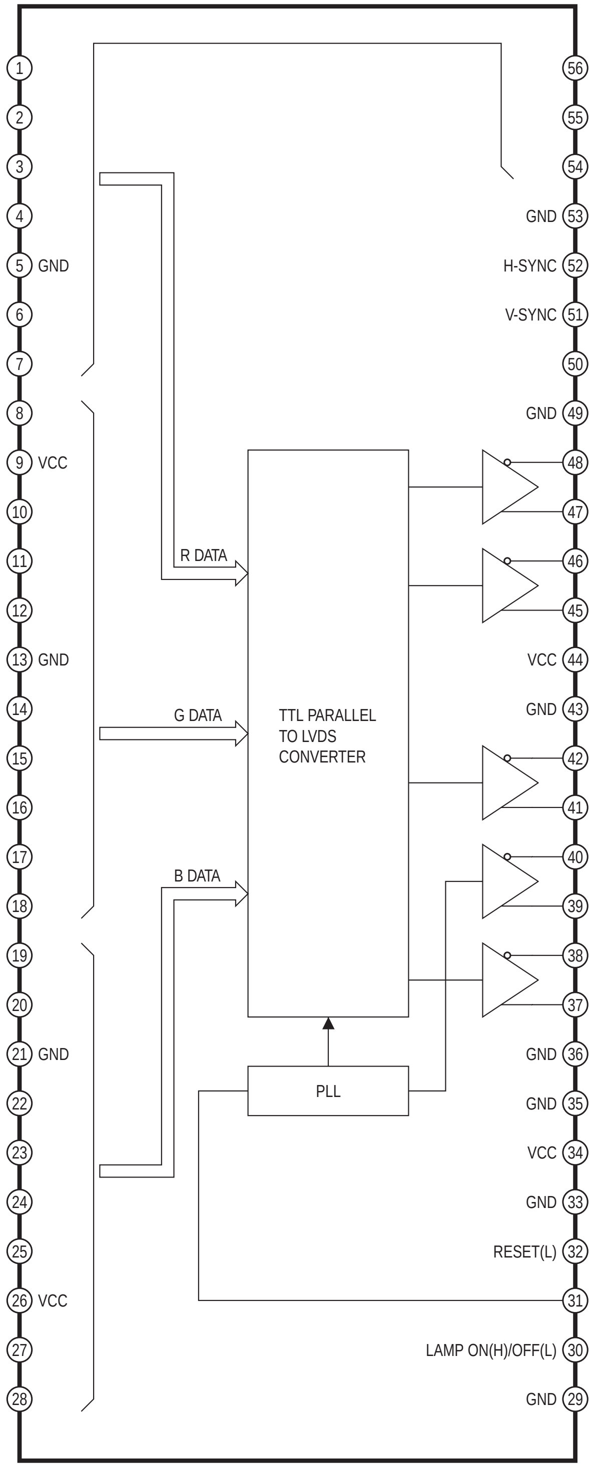
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

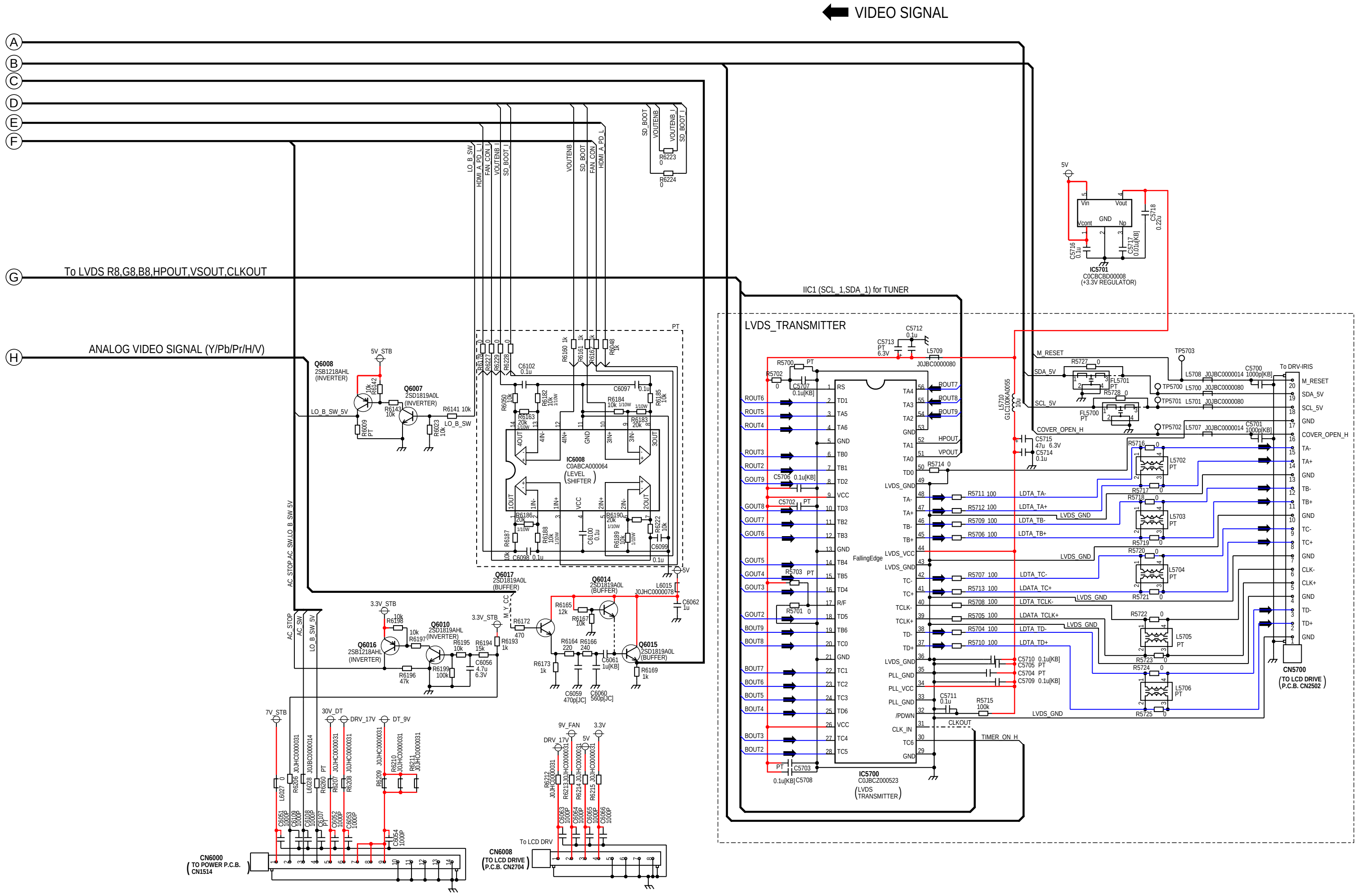
NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT

IC5700 DETAIL BLOCK DIAGRAM


1
2
3
4
5 GND
6
7
8
9 VCC
10
11
12
13 GND
14
15
16
17
18
19
20
21 GND
22
23
24
25
26 VCC
27
28
GND 29
LAMP ON(H)/OFF(L) 30
31
RESET(L) 32
GND 33
VCC 34
GND 35
GND 36
37
38
39
40
41
42
GND 43
VCC 44
45
46
47
48
GND 49
50
V-SYNC 51
H-SYNC 52
GND 53
54
55
56
R DATA
G DATA
B DATA
TTL PARALLEL TO LVDS CONVERTER
PLL


VIDEO SIGNAL
A
B
C
D
E
F
G
H
To LVDS R8,G8,B8,HPOUT,VSOUT,CLKOUT
ANALOG VIDEO SIGNAL (Y/Pb/Pr/H/V)
IIC1 (SCL_1,SDA_1) for TUNER
LVDS_TRANSMITTER
IC5700 C0JBCZ000523 (LVDS TRANSMITTER)
IC5701 C0CBCB000008 (+3.3V REGULATOR)
IC6006 C0ABCA000064 (LEVEL SHIFTER)
Q6008 2SB1218AHL (INVERTER)
Q6007 2SD1819A0L (INVERTER)
Q6017 2SD1819A0L (BUFFER)
Q6014 2SD1819A0L (BUFFER)
Q6010 2SD1819A0L (INVERTER)
Q6016 2SB1218AHL (INVERTER)
Q6015 2SD1819A0L (BUFFER)
To DRV-IRIS
CN5700 (TO LCD DRIVE P.C.B. CN2502)
CN6000 (TO POWER P.C.B. CN1514)
CN6008 (TO LCD DRIVE P.C.B. CN2704)
To LCD DRV
5V_STB
3.3V_STB
7V_STB
30V_DT
DRV_17V
DT_9V
9V_FAN
TIMER_ON_H
CLKOUT
M_RESET
SDA_5V
SCL_5V
COVER_OPEN_H
HPOUT
VPOUT
LVDS_GND

LINK TO VOLTAGE CHART

13.4. BASE SCHEMATIC DIAGRAMS

BASE I SCHEMATIC DIAGRAM

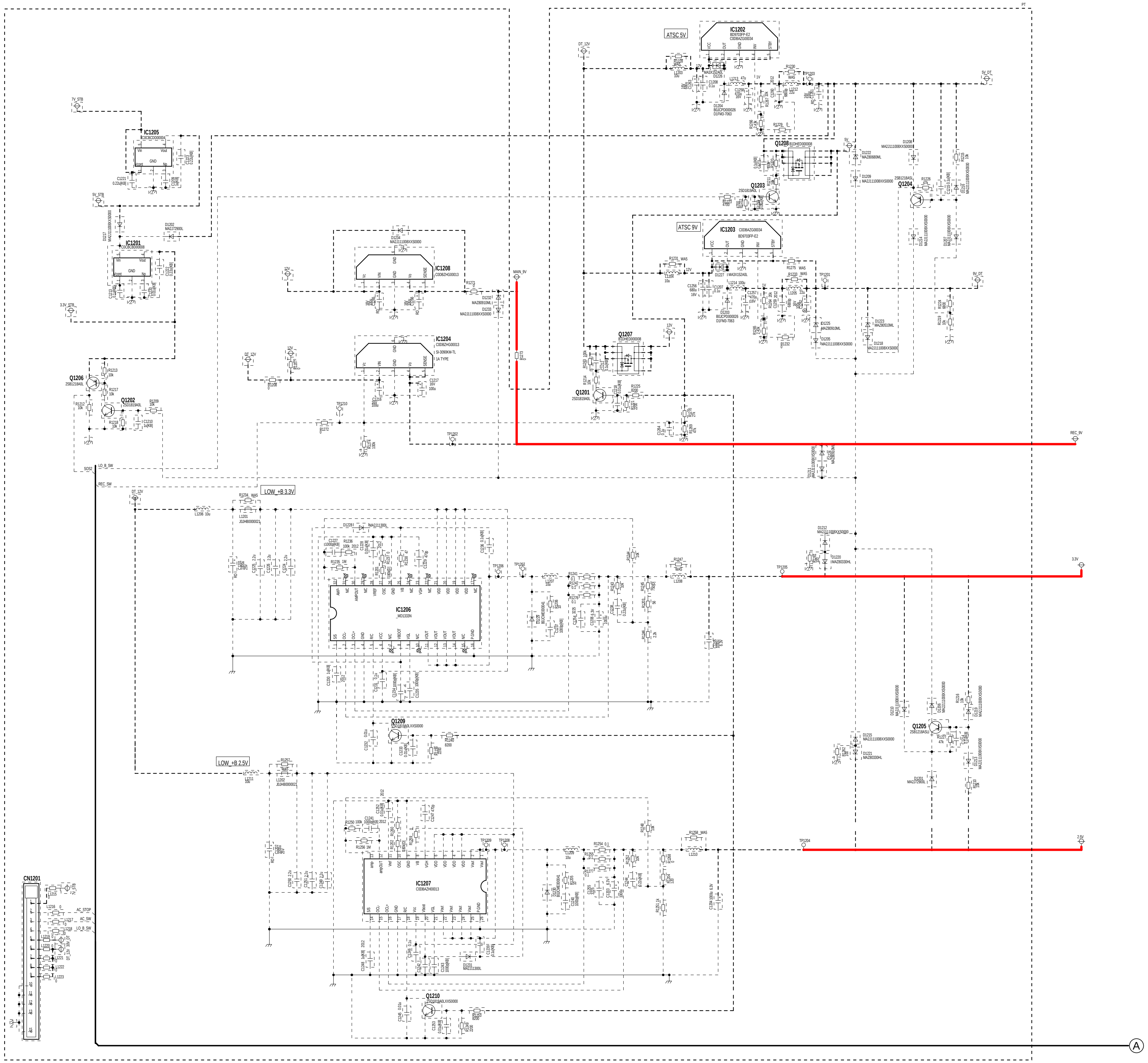
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

**COMPARISON CHART
OF MODELS & MARKS**

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


PT
ATSC 5V
IC1202
ATSC 9V
IC1203
IC1205
IC1201
IC1208
IC1204
IC1206
IC1207
Q1208
Q1203
Q1204
Q1207
Q1201
Q1206
Q1202
Q1209
Q1210
Q1205
CN1201
LOW_+B 3.3V
LOW_+B 2.5V
7V_STB
5V_STB
3.3V_STB
D7_12V
5V_OT
9V_OT
MAIN_9V
REC_9V
3.3V
2.5V
A

LINK TO VOLTAGE CHART

LSJB3197
BASE I SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

BASE II SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

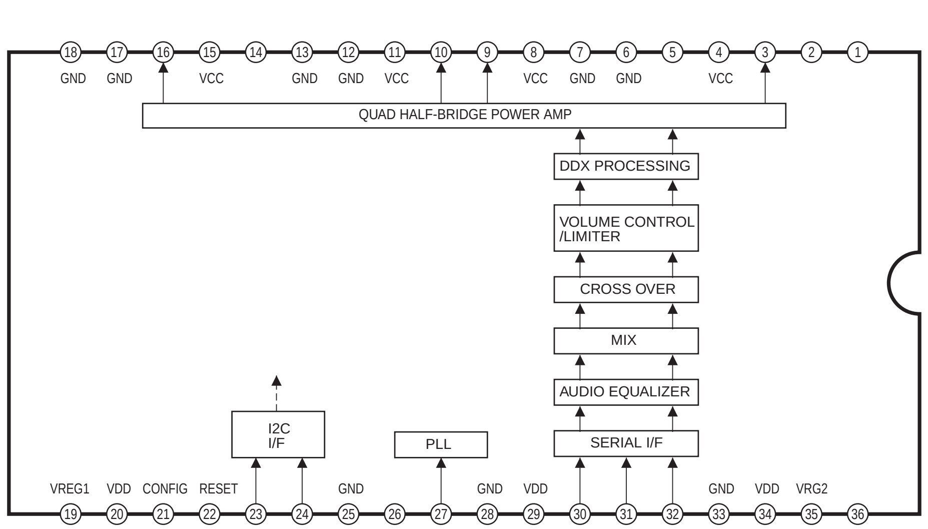
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

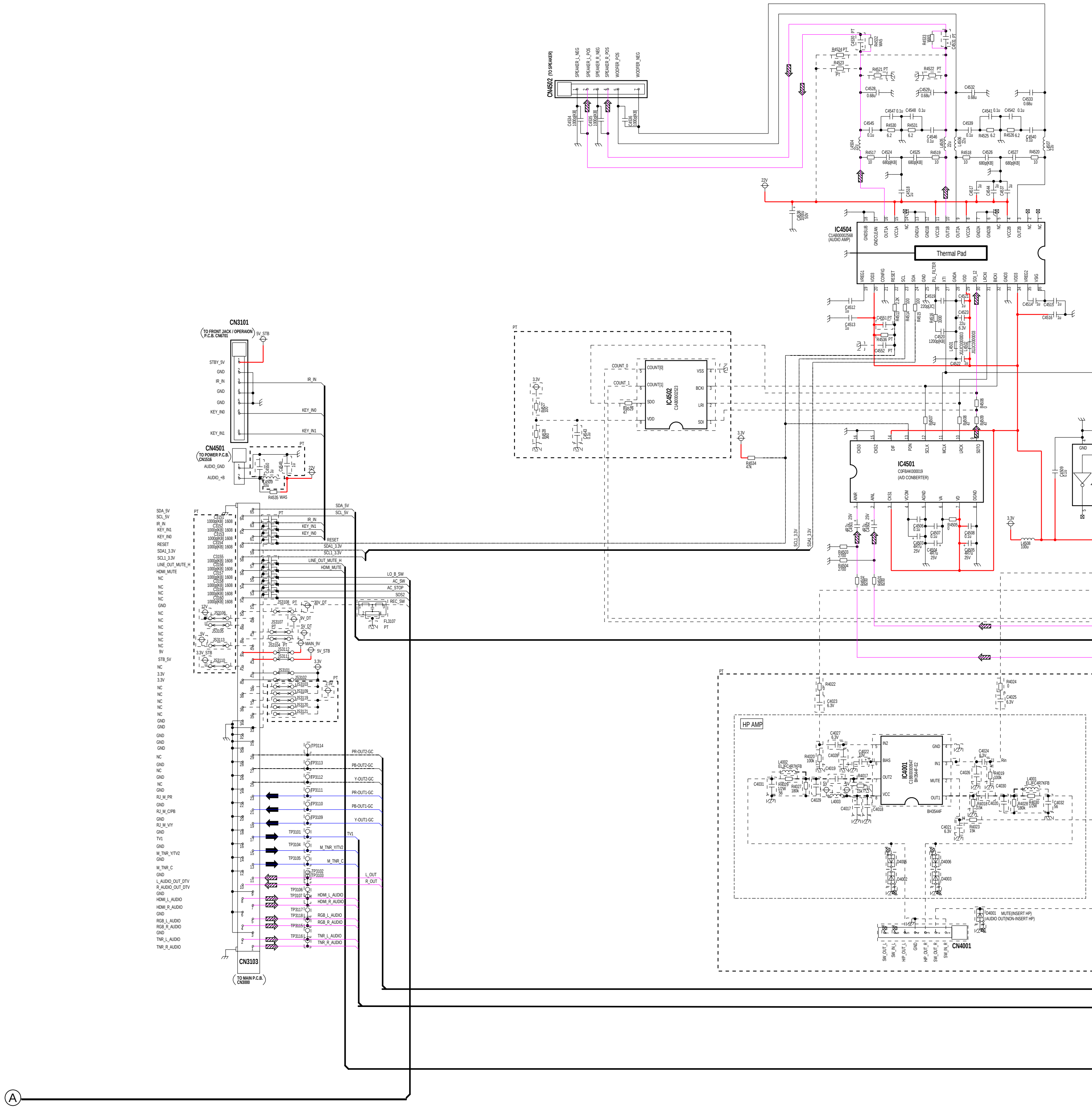
NOTE:
PARTS MARKED "PT" ARE NOT USED.

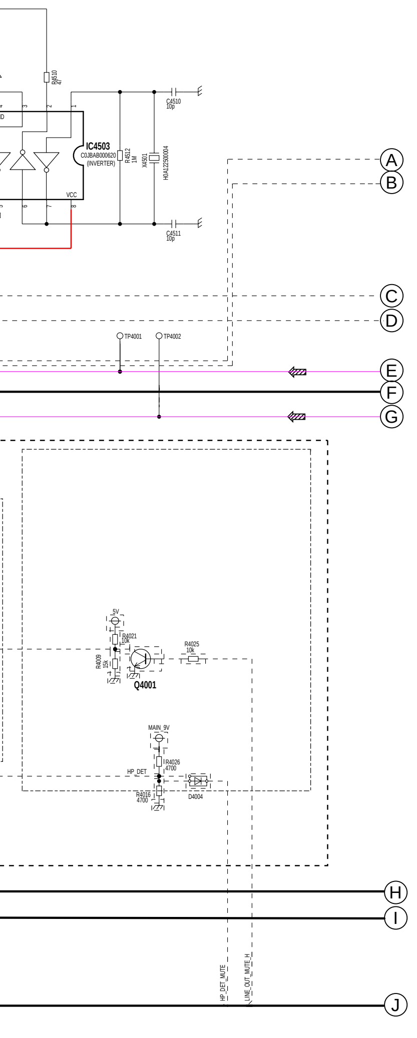
COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT

IC4504 DETAIL BLOCK DIAGRAM


VIDEO SIGNAL
AUDIO SIGNAL
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
GND GND VCC GND GND VCC VCC GND GND VCC
QUAD HALF-BRIDGE POWER AMP
DDX PROCESSING
VOLUME CONTROL /LIMITER
CROSS OVER
MIX
AUDIO EQUALIZER
I2C I/F
PLL
SERIAL I/F
VREG1 VDD CONFIG RESET GND GND VDD GND VDD VRG2
19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36


CN4502 (TO SPEAKER)
IC4504 (AUDIO AMP)
Thermal Pad
IC4502
IC4501 (A/D CONVERTER)
IC4503 (INVERTER)
CN3101 (TO FRONT JACK / OPERATION P.C.B. CN4705)
CN4501 (TO POWER P.C.B. CN2024)
CN3103 (TO MAIN P.C.B. CN3000)
HP AMP
IC4001
CN4001
Q4001
A


A
B
C
D
E
F
G
H
I
J

LINK TO VOLTAGE CHART

BASE III SCHEMATIC DIAGRAM

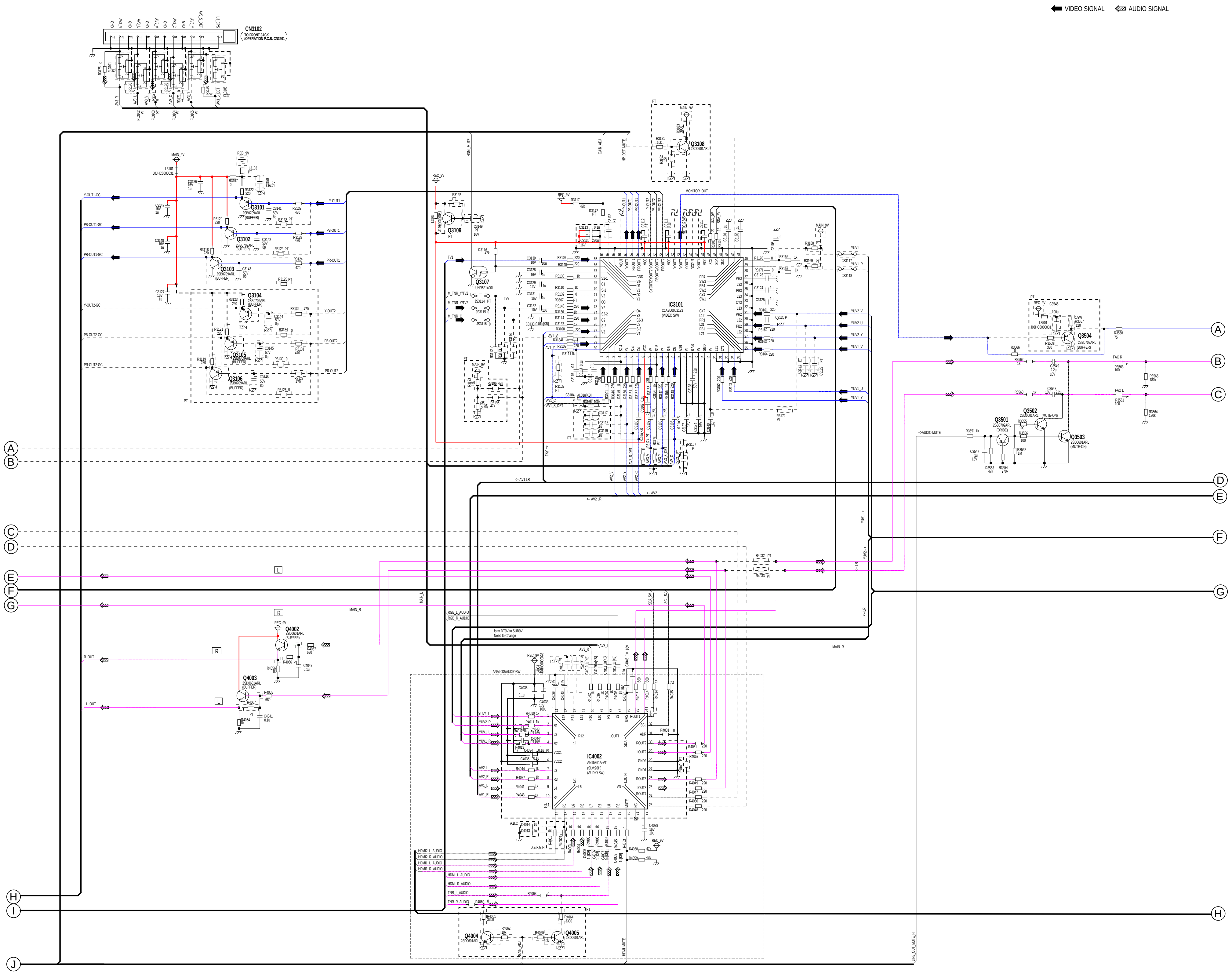
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

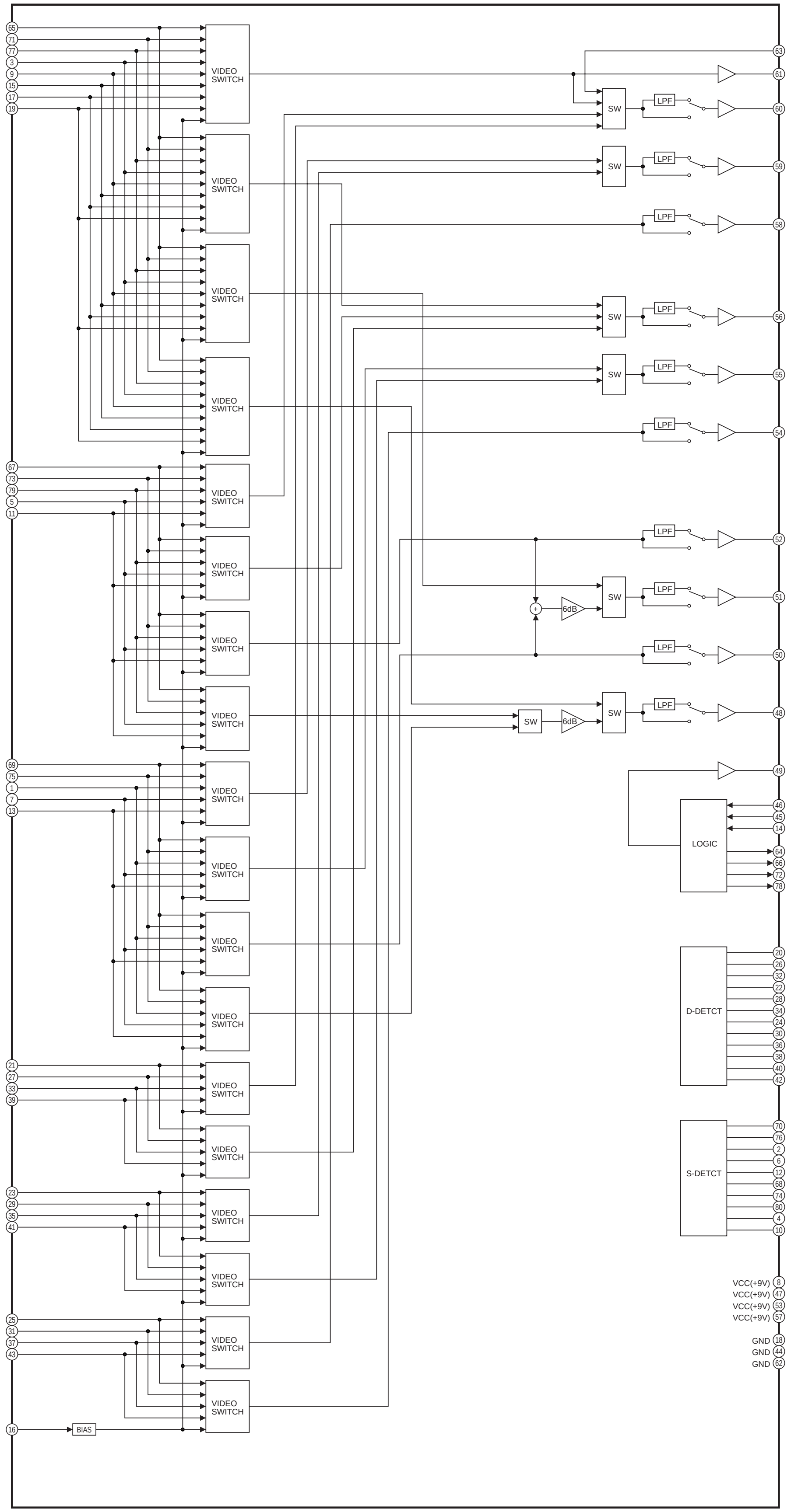
MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
AUDIO SIGNAL
CN3102
TO FRONT JACK (OPERATION P.C.B. CN3900)
IC3101
C1AB00002123
(VIDEO SW)
IC4002
AN15861A-VT
(AUDIO SW)
Q3101
Q3102
Q3103
Q3104
Q3105
Q3106
Q3107
Q3108
Q3109
Q3501
Q3502
Q3503
Q3504
Q4002
Q4003
Q4004
Q4005
MAIN_9V
REC_9V
Y-OUT1-GC
PB-OUT1-GC
PR-OUT1-GC
Y-OUT2-GC
PB-OUT2-GC
PR-OUT2-GC
R_OUT
L_OUT
MONITOR_OUT
ANALOG/AUDIOSW
AUDIO MUTE
L
R
A
B
C
D
E
F
G
H
I
J

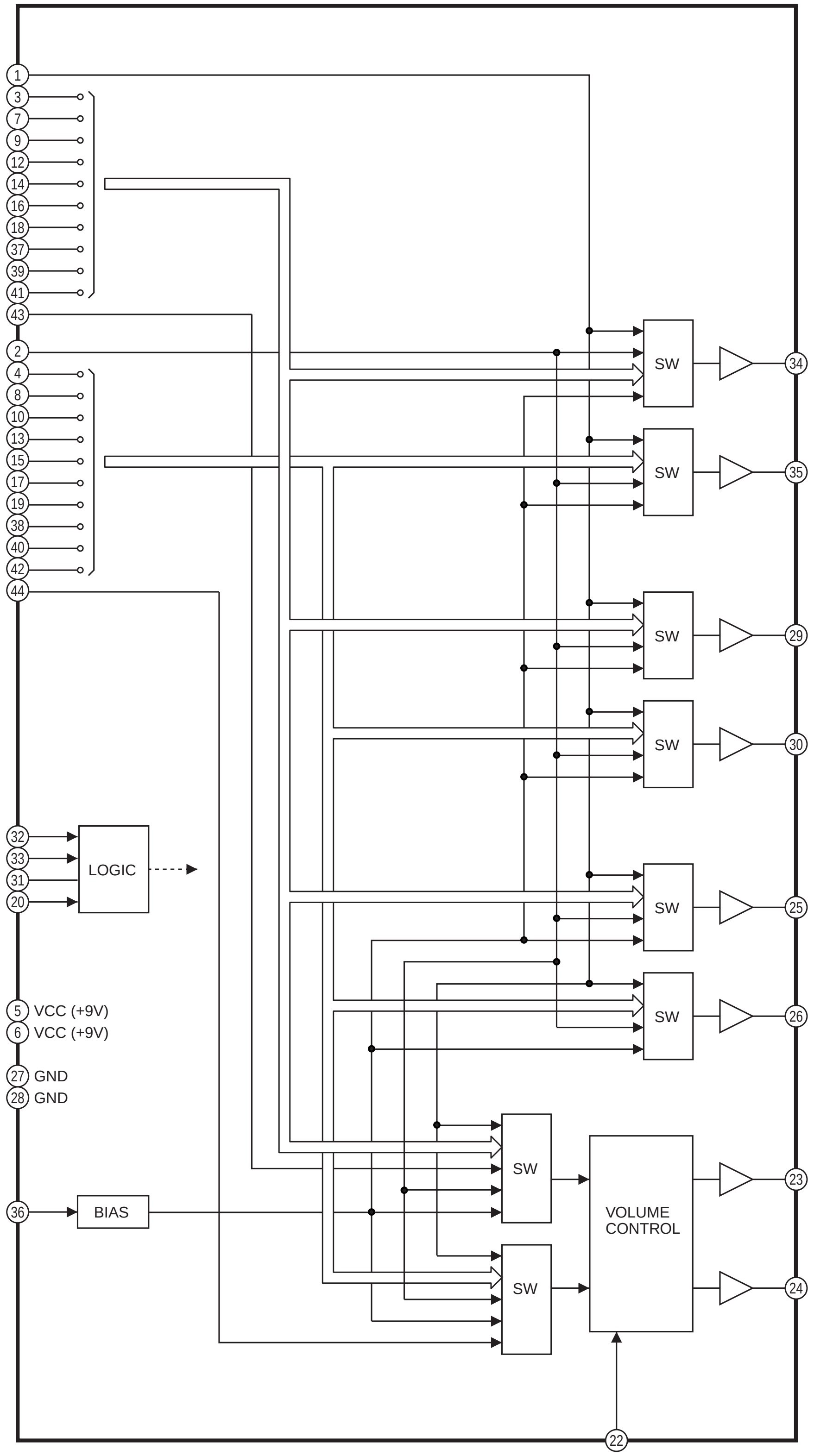
LINK TO VOLTAGE CHART

LSJB3197
BASE III SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

IC3101 DETAIL BLOCK DIAGRAM


65
71
77
3
9
15
17
19
67
73
79
5
11
69
75
1
7
13
21
27
33
39
23
29
35
41
25
31
37
43
16
BIAS
VIDEO SWITCH
SW
LPF
6dB
63
61
60
59
58
56
55
54
52
51
50
48
49
LOGIC
46
45
14
64
66
72
78
D-DETCT
20
26
32
22
28
34
24
30
36
38
40
42
S-DETCT
70
76
2
6
12
68
74
80
4
10
VCC(+9V) 8
VCC(+9V) 47
VCC(+9V) 53
VCC(+9V) 57
GND 18
GND 44
GND 62

IC4002 DETAIL BLOCK DIAGRAM


1
3
7
9
12
14
16
18
37
39
41
43
2
4
8
10
13
15
17
19
38
40
42
44
SW
34
35
29
30
25
26
32
33
31
20
LOGIC
5 VCC (+9V)
6 VCC (+9V)
27 GND
28 GND
36
BIAS
SW
VOLUME CONTROL
23
24
22

BASE IV SCHEMATIC DIAGRAM

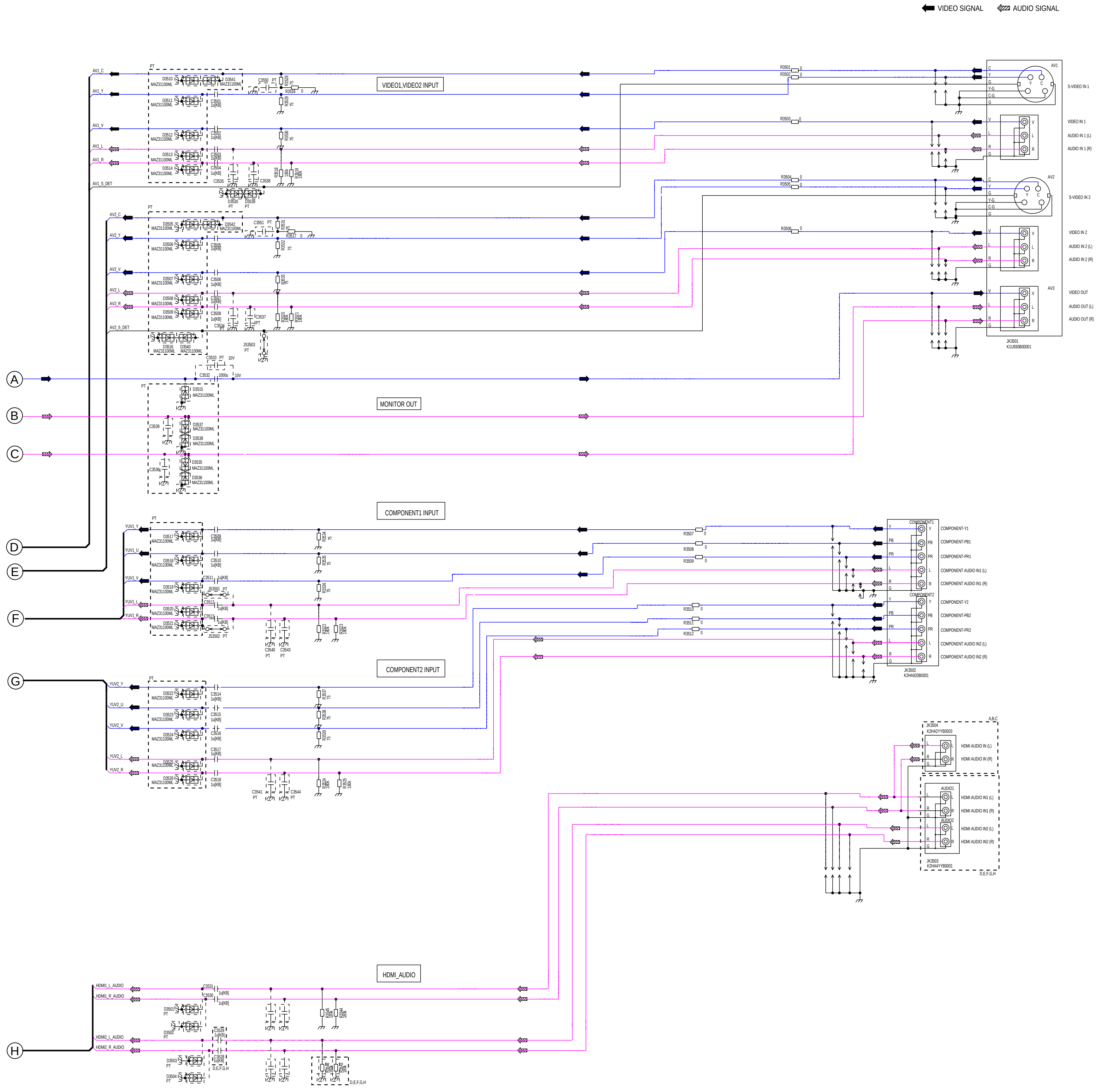
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H
Not Used	PT


VIDEO SIGNAL
AUDIO SIGNAL
VIDEO1,VIDEO2 INPUT
MONITOR OUT
COMPONENT1 INPUT
COMPONENT2 INPUT
HDMI_AUDIO
A
B
C
D
E
F
G
H

LINK TO VOLTAGE CHART

LSJB3197
BASE IV SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

13.5. POWER SCHEMATIC DIAGRAMS

POWER I SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

⚠ 6.3A 250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 6.3A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 6.3A 250V

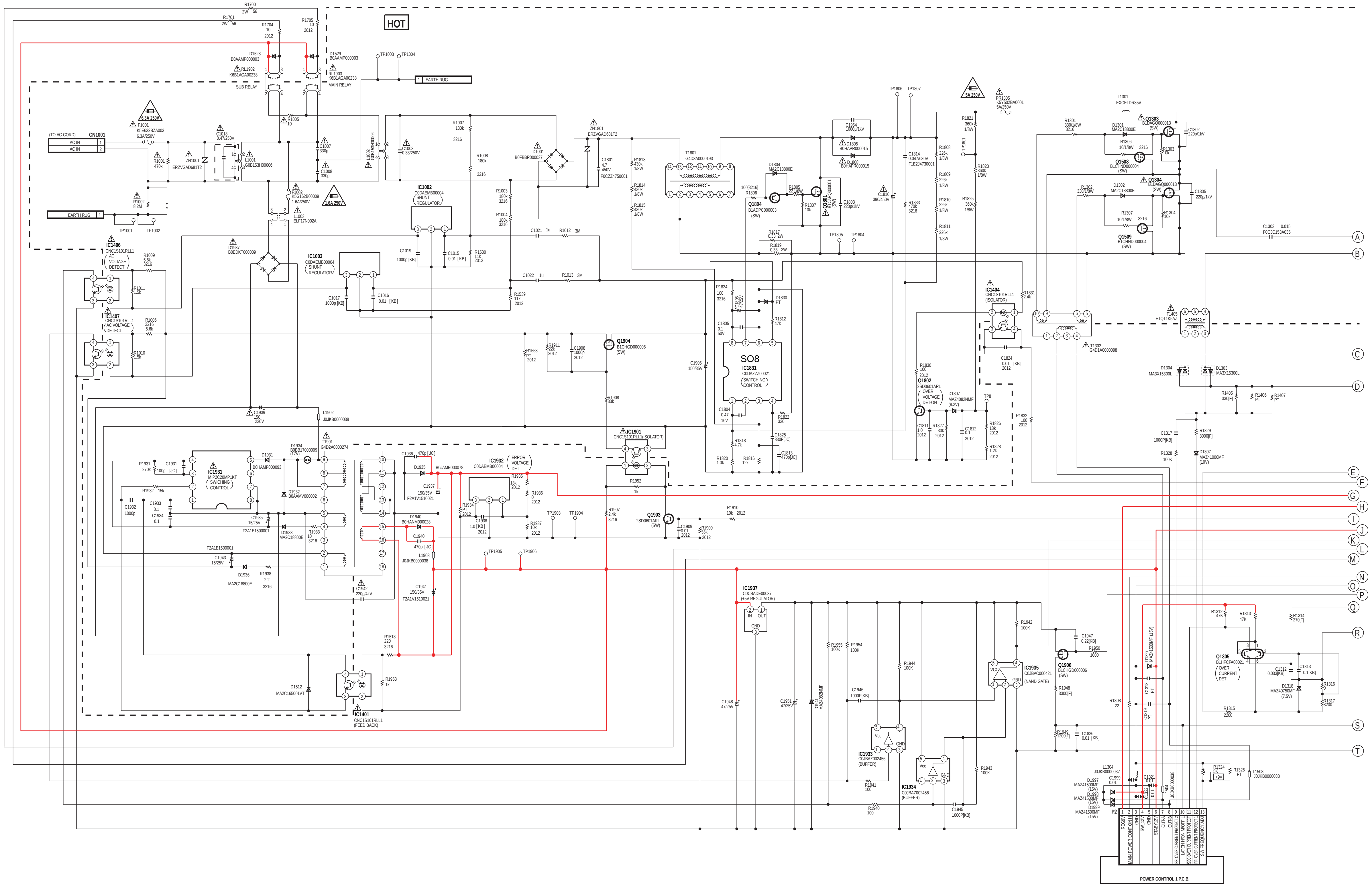
⚠ 5A 250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 5A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME
TYPE 5A 250V

⚠ 1.6A 250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD,
REPLACE ONLY WITH THE SAME TYPE 1.6A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES
D'T INCENDIE N'I UTILISERQUE DES FUSIBLE DE MÉME
TYPE 1.6A 250V

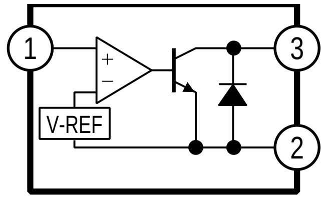
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.


HOT
(TO AC CORD)
CN1001
AC IN
AC IN
EARTH RUG
F1001
6.3A 250V
ZN1001
L1001
L1002
L1003
F1002
1.6A 250V
RL1902
SUB RELAY
RL1903
MAIN RELAY
D1528
D1529
TP1003
TP1004
EARTH RUG
IC1002
SHUNT REGULATOR
IC1003
SHUNT REGULATOR
D1937
D1001
ZN1801
T1801
IC1406
AC VOLTAGE DETECT
IC1407
AC VOLTAGE DETECT
Q1804
Q1801
D1805
D1806
F1805
5A 250V
L1301
Q1303
Q1304
Q1508
Q1509
T1401
T1302
IC1404
(ISOLATOR)
SO8
IC1831
(SWITCHING CONTROL)
Q1802
OVER VOLTAGE DET-ON
D1807
Q1904
IC1901
(ISOLATOR)
T1901
IC1931
(SWICHING CONTROL)
IC1932
ERROR VOLTAGE DET
Q1903
L1902
TP1903
TP1904
TP1905
TP1906
IC1401
(FEED BACK)
D1512
IC1937
(+5V REGULATOR)
IN
OUT
GND
IC1933
(BUFFER)
IC1934
(BUFFER)
IC1935
(NAND GATE)
Q1906
Q1305
OVER CURRENT DET
D1304
D1303
D1307
L1304
L1503
P2
POWER CONTROL 1 P.C.B.
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T

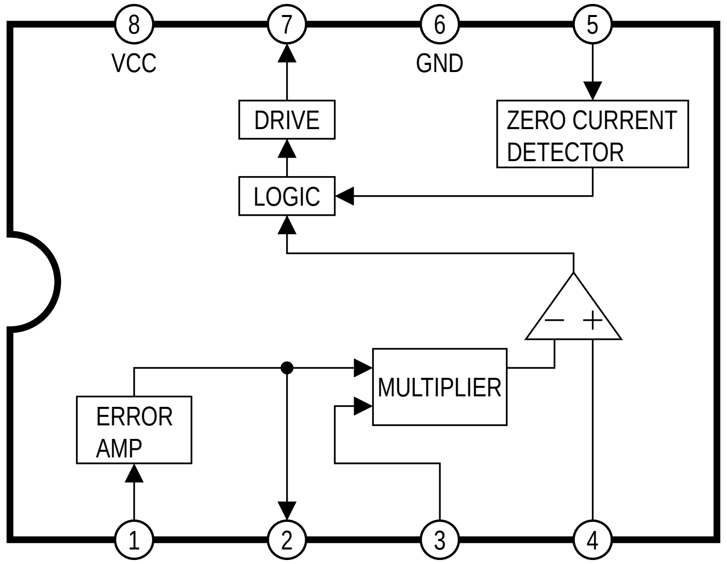
LINK TO VOLTAGE CHART

LSJB1206
POWER I SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

IC1002 / IC1003 / IC1932 DETAIL BLOCK DIAGRAM



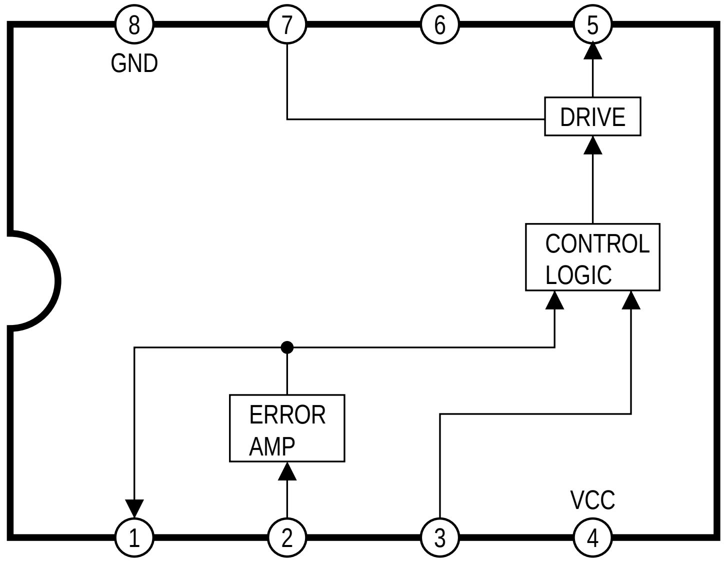
IC1831 DETAIL BLOCK DIAGRAM


8
7
6
5
VCC
GND
DRIVE
ZERO CURRENT DETECTOR
LOGIC
− +
MULTIPLIER
ERROR AMP
1
2
3
4

I/O CHART OF POWER CONTROL 1 P.C.B. (P2 ON POWER P.C.B.)

Pin No.	I/O	Signal Name	Description	WF No.
1	I	REG9V	+9V FOR POWER CONTROL CIRCUIT 1	—
2	I	MAIN POWER CONT ON H	POWER CONTROL CIRCUIT 1 ON (H)	—
3	-	GND	GND	—
4	O	SW_12V	+12V	—
5	-	GND	GND	—
6	I	STABY12V	STBY+12V FOR POWER CONTROL CIRCUIT 1	—
7	O	OUT-A	PWM CONTROL 1	WF1
8	O	OUT-B	PWM CONTROL 2	WF2
9	I	PRI OVER CURRENT PROTECT 2	OVER CURRENT DETECT 2 FOR PRIMARY CIRCUIT	—
10	I	LATCH H/ON M/OFF L	POWER CONTROL CIRCUIT 1 OFF(L)/ON(M)/OVER VOLTAGE DETECT(H)	—
11	I	SEC OVER CURRENT PROTECT	OVER CURRENT DETECT FOR SECONDARY CIRCUIT	—
12	I	PRI OVER CURRENT PROTECT 1	OVER CURRENT DETECT 1 FOR PRIMARY CIRCUIT	—
13	-	SW FREQUENCY ADJ	+9V CONTROL	—

IC1931 DETAIL BLOCK DIAGRAM


8
7
6
5
GND
DRIVE
CONTROL LOGIC
ERROR AMP
VCC
1
2
3
4

POWER II SCHEMATIC DIAGRAM

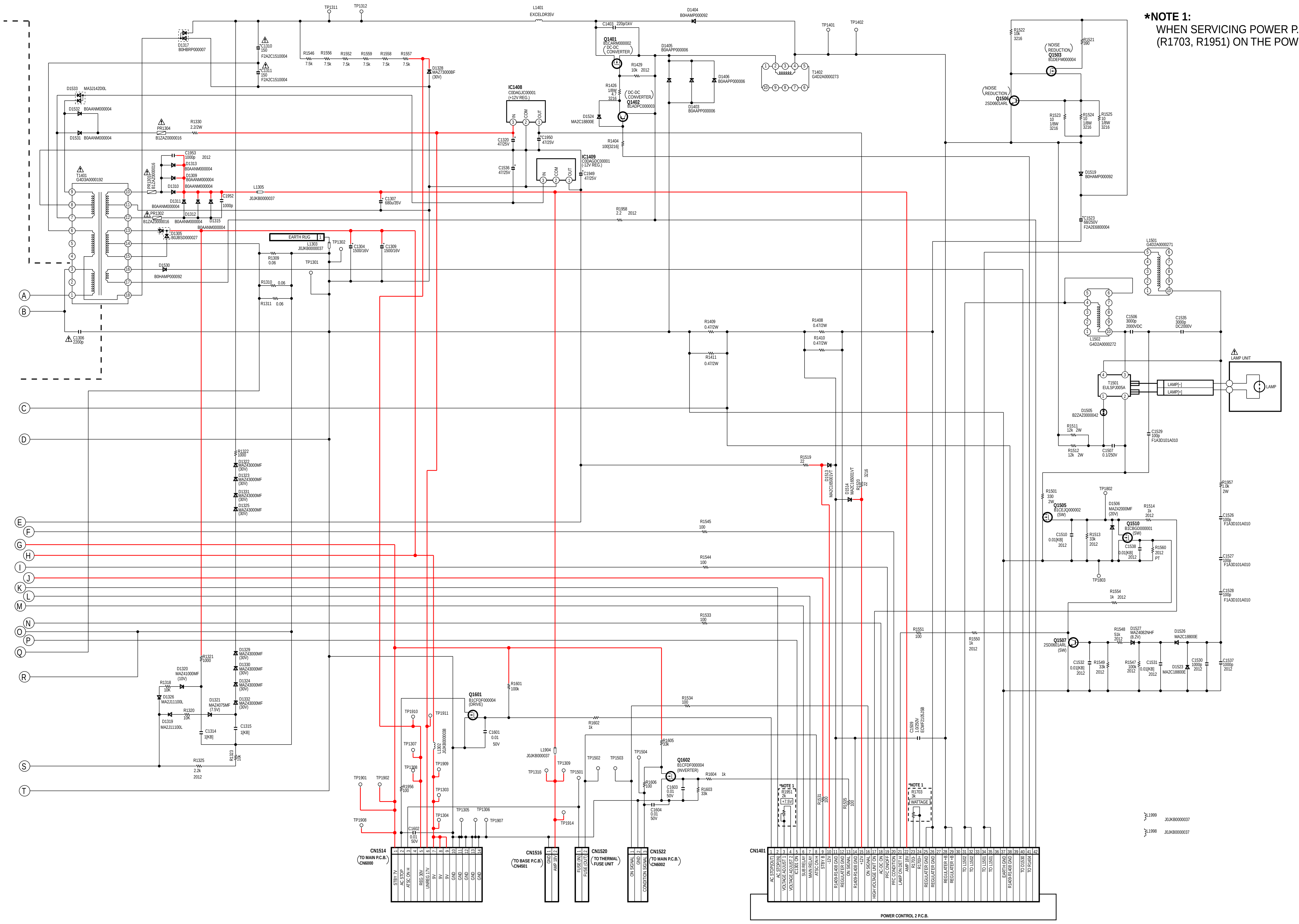
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

***NOTE 1:**
WHEN SERVICING POWER P.C.B., DO NOT TURN THE VARIABLE RESISTOR
(R1703, R1951) ON THE POWER P.C.B.

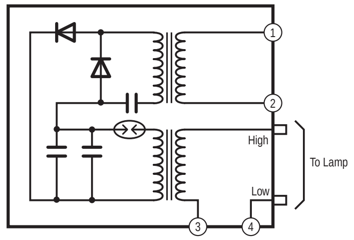


A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
T1401 G4D3A0000192
IC1408 C0DAGJC00001 (+12V REG.)
IC1409 C0DAGDC00001 (+12V REG.)
Q1401 B1CARM000002 (DC-DC CONVERTER)
Q1402 B1ADPC000003 (DC-DC CONVERTER)
T1402 G4D2A0000273
L1401 EXCELDR35V
EARTH PLUG
L1501 G4D2A0000271
L1502 G4D2A0000272
T1501 EULSPJ005A
LAMP UNIT
LAMP
LAMP[-]
LAMP[+]
Q1503 B1DEFM000004 (NOISE REDUCTION)
Q1506 2SD0601ARL (NOISE REDUCTION)
Q1505 B1CEJQ000002 (SW)
Q1510 B1CBGD000001 (SW)
Q1507 2SD0601ARL (SW)
Q1601 B1CFDF000004 (DRIVE)
Q1602 B1CFDF000004 (INVERTER)
CN1514 (TO MAIN P.C.B.) CN6000
STBY 7V
AC STOP
ATSC ON H
REG 30V
UNREG 12V
9V
GND
CN1516 (TO BASE P.C.B.) CN4501
GND
AMP 18V
CN1520 (TO THERMAL FUSE UNIT)
FUSE (IN)
FUSE (OUT)
CN1522 (TO MAIN P.C.B.) CN6002
ON SIGNAL
GND
CONDITION SIGNAL
CN1401
POWER CONTROL 2 P.C.B.
*NOTE 1
WATTAGE

LINK TO VOLTAGE CHART

LSJB1206
POWER II SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

T1501 DETAIL BLOCK DIAGRAM



I/O CHART OF POWER CONTROL 2 P.C.B. (CN1401 ON POWER P.C.B.)

Pin No.	I/O	Signal Name	Description	WF No.
1	O	AC STOP(OUT)	AC STOP (L)	—
2	I	AC STOP(IN)	AC STOP DETECT (H)	—
3	-	VOLTAGE ADJUST 1	+7.5V CONTROL 1	—
4	-	VOLTAGE ADJUST 2	+7.5V CONTROL 2	—
5	O	IC1301 ON	POWER CONTROL CIRCUIT 1 ON (H)	—
6	O	SUB RELAY	SUB RELAY (RL1902) ON (H)	—
7	O	MAIN RELAY	MAIN RELAY (RL1903) ON (H)	—
8	I	ATSC ON H	AC SW (POWER SW) ON (H)	—
9	I	STBY B	STBY+12V FOR POWER CONTROL CIRCUIT 2	—
10	I	-12V	-12V FOR POWER CONTROL CIRCUIT 2	—
11	-	R1409-R1408 GND	GND	—
12	-	REGULATER GND	GND	—
13	O	ON SIGNAL	LAMP STATUS (OFF (L)/ON (H))	—
14	-	R1409-R1408 GND	GND	—
15	I	+12V	+12V	—
16	I	ON SIGNAL	LAMP ON (H)	—
17	O	HIGH VOLTAGE UNIT ON	IGNITER ON (H)	—
18	O	AC-DC ON	POWER CONTROL CIRCUIT 1 ON (H)	—
19	O	PFC ON/OFF	PFC CIRCUIT ON (H)	—
20	I	PFC CONDITION	OVER VOLTAGE DETECT (L) FOR PFC CIRCUIT	—
21	I	LAMP ON DET H	LAMP ON DETECT (H)	—
22	I	AMP 18V	AMP+18V FOR POWER CONTROL CIRCUIT 2	—
23	-	R1703-	WATTAGE CONTROL	—
24	-	R1703+	WATTAGE CONTROL	—
25	-	REGULATER GND	GND	—
26	-	REGULATER GND	GND	—
27	-	-----	(Not used)	—
28	I	REGULATER +B	+B (APPROX. +200V) FOR BALLAST CIRCUIT	—
29	I	REGULATER +B	+B (APPROX. +200V) FOR BALLAST CIRCUIT	—
30	-	-----	(Not used)	—
31	O	TO L1502	INVERTER PULSE 1	WF6
32	O	TO L1502	INVERTER PULSE 1	—
33	-	-----	(Not used)	—
34	O	TO L1501	INVERTER PULSE 2	WF7
35	O	TO L1501	INVERTER PULSE 2	—
36	-	-----	(Not used)	—
37	-	EARTH GND	GND	—
38	-	R1409-R1408 GND	GND	—
39	-	-----	(Not used)	—
40	I	TO D1530	VB FOR PWM CONTROL OF POWER CONTROL CIRCUIT 2	—
41	O	TO R1404	PWM CONTROL FOR LAMP POWER	WF8
42	I		VS FOR PWM CONTROL OF POWER CONTROL CIRCUIT 2	—

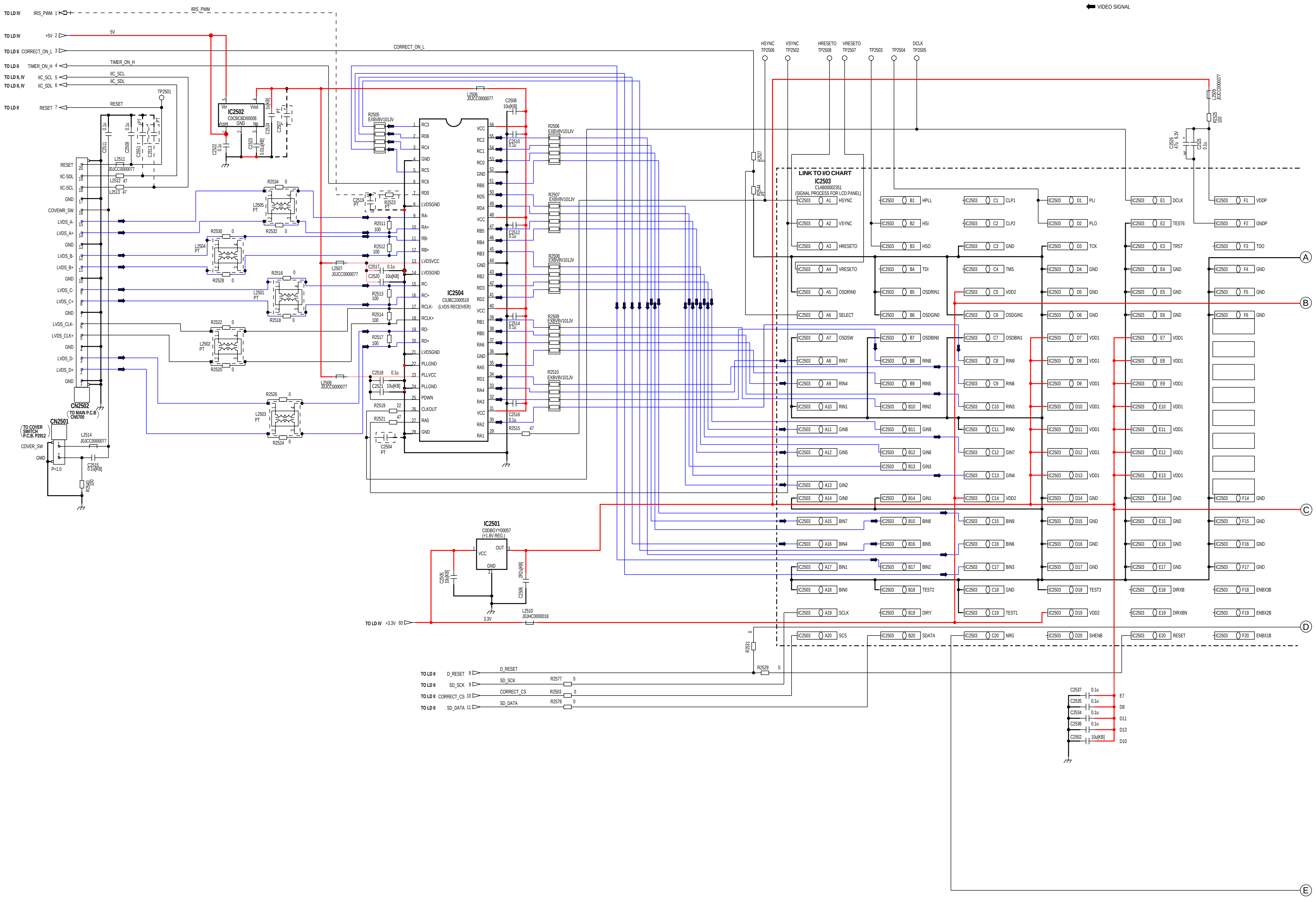
13.6. LCD DRIVE SCHEMATIC DIAGRAM

LCD DRIVE I SCHEMATIC DIAGRAM (1/2)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


TO LD IV IRIS_PWM 1
TO LD IV +5V 2
TO LD II CORRECT_ON_L 3
TO LD II TIMER_ON_H 4
TO LD II, IV IIC_SCL 5
TO LD II, IV IIC_SDL 6
TO LD II RESET 7
IRIS_PWM
5V
CORRECT_ON_L
TIMER_ON_H
RESET
TP2501
IC2502
C0CBCB000008
Vin Vout
Vcont GND Nc
RESET
IIC-SDL
IIC-SCL
GND
COVEWR_SW
LVDS_A-
LVDS_A+
LVDS_B-
LVDS_B+
LVDS_C-
LVDS_C+
LVDS_CLK-
LVDS_CLK+
LVDS_D-
LVDS_D+
CN2502
(TO MAIN P.C.B CN5700)
CN2501
(TO COVER SWITCH P.C.B. P2912)
COVER_SW
GND
IC2504
C0JBCZ000519
(LVDS RECEIVER)
RC3 RD6 RC4 GND RC5 RC6 RD0 LVDSGND RA- RA+ RB- RB+ LVDSVCC LVDSGND RC- RC+ RCLK- RCLK+ RD- RD+ LVDSGND PLLGND PLLVCC PLLGND PDWN CLKOUT RA0 GND
VCC RC2 RC1 RC0 GND RB6 RB5 RB4 VCC RB3 RB2 GND RB1 RB0 RD3 RD2 VCC RB1 RB0 RA6 GND RA5 RD1 RA4 RA3 VCC RA2 RA1
IC2501
C0DBGYY00057
(+1.8V REG.)
VCC OUT GND
3.3V
TO LD IV +3.3V
TO LD II D_RESET 8
TO LD II SD_SCK 9
TO LD II CORRECT_CS 10
TO LD II SD_DATA 11
VIDEO SIGNAL
HSYNC TP2506
VSYNC TP2502
HRESETO TP2508
VRESETO TP2507
TP2503
TP2504
DCLK TP2505
LINK TO I/O CHART
IC2503
C1AB00002351
(SIGNAL PROCESS FOR LCD PANEL)
A
B
C
D
E

LINK TO VOLTAGE CHART

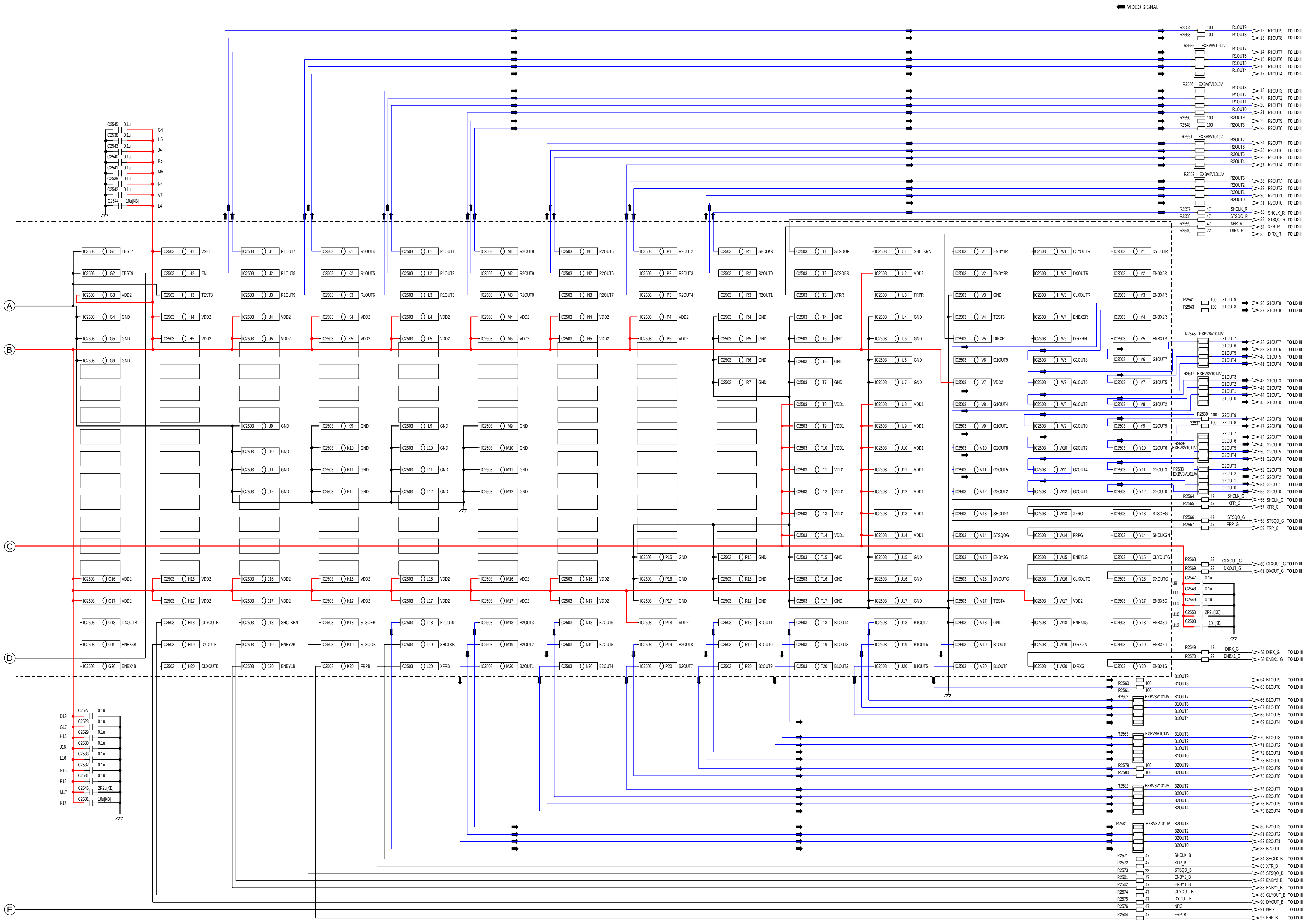
LSJB3212
LCD DRIVE I SCHEMATIC DIAGRAM (1/2)
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

LCD DRIVE I SCHEMATIC DIAGRAM (2/2)

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

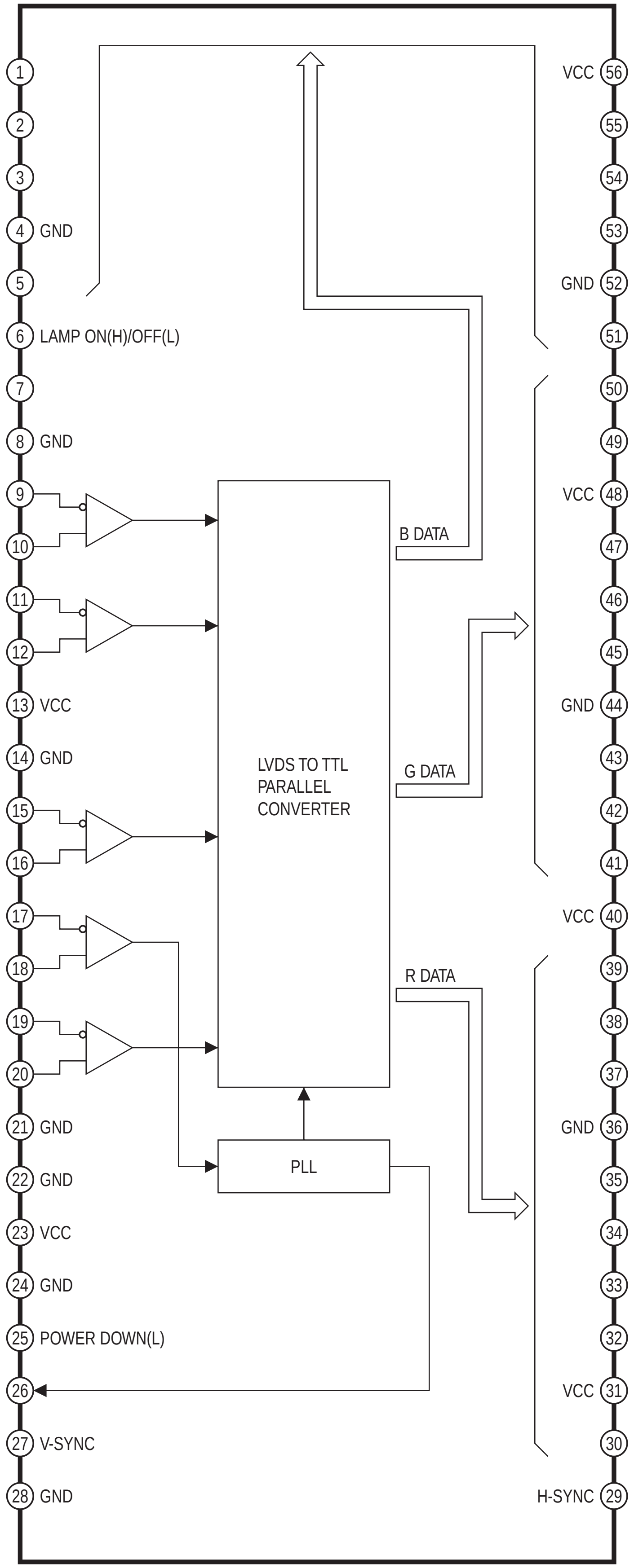
NOTE:
PARTS MARKED "PT" ARE NOT USED.


VIDEO SIGNAL
A
B
C
D
E
IC2503
R1OUT9
R1OUT8
R2OUT9
R2OUT8
G1OUT9
G1OUT8
G2OUT9
G2OUT8
B1OUT9
B1OUT8
B2OUT9
B2OUT8
SHCLK_R
STSQO_R
XFR_R
DIRX_R
SHCLK_G
XFR_G
STSQO_G
FRP_G
CLXOUT_G
DXOUT_G
DIRX_G
ENBX1_G
SHCLK_B
XFR_B
STSQO_B
ENBY2_B
ENBY1_B
CLYOUT_B
DYOUT_B
NRG
FRP_B
EXBV8V101JV
TO LD III
GND
VDD1
VDD2
0.1u
10u(KB)
2R2u(KB)

I/O CHART OF IC2503

Pin No.	I/O	Signal Name	Description
A1	I	HSYNC	H-SYNC
A2	I	VSYNC	V-SYNC
A3	-	HRESETO	(Not used)
A4	-	VRESETO	(Not used)
A5	-	OSDRIN0	(Not used)
A6	I	SELECT	COREECT ON(L)
A7	-	OSDSW	(Not used)
A8	I	RIN7	R DATA 5
A9	I	RIN4	R DATA 2
A10	-	RIN1	(Not used)
A11	I	GIN8	G DATA 6
A12	I	GIN5	G DATA 3
A13	I	GIN2	G DATA 0
A14	-	GIN0	(Not used)
A15	I	BIN7	B DATA 5
A16	I	BIN4	B DATA 2
A17	-	BIN1	(Not used)
A18	-	BIN0	(Not used)
A19	I	SCLK	SERIAL CLOCK
A20	I	SCS	CS(L)
B1	-	HPLL	(Not used)
B2	-	HSI	(Not used)
B3	-	HSO	(Not used)
B4	-	TDI	(Not used)
B5	-	OSDRIN1	(Not used)
B6	-	OSDGIN0	(Not used)
B7	-	OSDBIN0	(Not used)
B8	I	RIN8	R DATA 6
B9	I	RIN5	R DATA 3
B10	I	RIN2	R DATA 0
B11	I	GIN9	G DATA 7
B12	I	GIN6	G DATA 4
B13	I	GIN3	G DATA 1
B14	-	GIN1	(Not used)
B15	I	BIN8	B DATA 6
B16	I	BIN5	B DATA 3
B17	I	BIN2	B DATA 0
B18	-	TEST2	(Not used)
B19	-	DIRY	(Not used)
B20	I	SDATA	SERIAL DATA
C1	-	CLP1	(Not used)
C2	-	CLP2	(Not used)
C3	-	GND	GND
C4	-	TMS	(Not used)
C5	I	VDD2	+3.3V
C6	-	OSDGIN1	(Not used)
C7	-	OSDBIN1	(Not used)
C8	I	RIN9	R DATA 7
C9	I	RIN6	R DATA 4
C10	I	RIN3	R DATA 0
C11	-	RIN0	(Not used)
C12	I	GIN7	G DATA 5
C13	I	GIN4	G DATA 2
C14	I	VDD2	+3.3V
C15	I	BIN9	B DATA 7
C16	I	BIN6	B DATA 4
C17	I	BIN3	B DATA 1
C18	-	GND	GND
C19	-	TEST1	(Not used)
C20	O	NRG	NRG PULSE
D1	-	PLI	(Not used)
D2	-	PLO	(Not used)
D3	-	TCK	(Not used)
D4	-	GND	GND
D5	-	GND	GND
D6	-	GND	GND
D7	I	VDD1	+1.2V
D8	I	VDD1	+1.2V
D9	I	VDD1	+1.2V
D10	I	VDD1	+1.2V
D11	I	VDD1	+1.2V
D12	I	VDD1	+1.2V
D13	I	VDD1	+1.2V
D14	-	GND	GND
D15	-	GND	GND
D16	-	GND	GND
D17	-	GND	GND
D18	-	TEST3	(Not used)
D19	I	VDD2	+3.3V
D20	-	SHENB	(Not used)
E1	I	DCLK	CLOCK(76MHz)
E2	-	TEST6	(Not used)
E3	-	TRST	(Not used)
E4	-	GND	GND
E5	-	GND	GND
E6	-	GND	GND
E7	I	VDD1	+1.2V
E8	I	VDD1	+1.2V
E9	I	VDD1	+1.2V
E10	I	VDD1	+1.2V
E11	I	VDD1	+1.2V
E12	I	VDD1	+1.2V
E13	I	VDD1	+1.2V
E14	-	GND	GND
E15	-	GND	GND
E16	-	GND	GND
E17	-	GND	GND
E18	-	DIRXB	(Not used)
E19	-	DIRXBN	(Not used)
E20	I	RESET	RESET(L)
F1	I	VDDP	+1.2V
F2	-	GNDP	GND
F3	-	TDO	(Not used)
F4	-	GND	GND
F5	-	GND	GND
F6	-	GND	GND
F14	-	GND	GND
F15	-	GND	GND
F16	-	GND	GND
F17	-	GND	GND
F18	-	ENBX3B	(Not used)
F19	-	ENBX2B	(Not used)
F20	-	ENBX1B	(Not used)
G1	-	TEST7	(Not used)
G2	-	TEST9	(Not used)
G3	I	VDD2	+3.3V
G4	-	GND	GND
G5	-	GND	GND
G6	-	GND	GND
G16	I	VDD2	+3.3V
G17	I	VDD2	+3.3V
G18	-	DXOUTB	(Not used)
G19	-	ENBX5B	(Not used)
G20	-	ENBX4B	(Not used)
H1	-	VSEL	(Not used)
H2	I	EN	PLL ENABLE(L)
H3	-	TEST8	(Not used)
H4	I	VDD2	+3.3V
H5	I	VDD2	+3.3V
H16	I	VDD2	+3.3V
H17	I	VDD2	+3.3V
H18	O	CLYOUTB	Y DIRECTION CLOCK(B)
H19	O	DYOUTB	Y DIRECTION SHIFT DATA
H20	-	CLXOUTB	(Not used)
J1	O	R1OUT7	R1 DATA 7
J2	O	R1OUT8	R1 DATA 8
J3	O	R1OUT9	R1 DATA 9
J4	I	VDD2	+3.3V
J5	I	VDD2	+3.3V
J9	-	GND	GND
J10	-	GND	GND
J11	-	GND	GND
J12	-	GND	GND
J16	I	VDD2	+3.3V
J17	I	VDD2	+3.3V
J18	-	SHCLKBN	(Not used)
J19	O	ENBY2B	ENABLE-Y2 PULSE
J20	O	ENBY1B	ENABLE-Y1 PULSE
K1	O	R1OUT4	R1 DATA 4
K2	O	R1OUT5	R1 DATA 5
K3	O	R1OUT6	R1 DATA 6
K4	I	VDD2	+3.3V
K5	I	VDD2	+3.3V
K9	-	GND	GND
K10	-	GND	GND
K11	-	GND	GND
K12	-	GND	GND
K16	I	VDD2	+3.3V
K17	I	VDD2	+3.3V
K18	-	STSQEB	(Not used)
K19	O	STSQOB	STSQO(B) PULSE
K20	O	FRPB	FRP(B) PULSE
L1	O	R1OUT1	R1 DATA 1
L2	O	R1OUT2	R1 DATA 2
L3	O	R1OUT3	R1 DATA 3
L4	I	VDD2	+3.3V
L5	I	VDD2	+3.3V
L9	-	GND	GND
L10	-	GND	GND
L11	-	GND	GND
L12	-	GND	GND
L16	I	VDD2	+3.3V
L17	I	VDD2	+3.3V
L18	O	B2OUT0	B2 DATA 0
L19	O	SHCLKB	SAMPLING & HOLD(B) CLOCK
L20	O	XFRB	XFR(B) PULSE
M1	O	R2OUT8	R2 DATA 8
M2	O	R2OUT9	R2 DATA 9
M3	O	R2OUT0	R1 DATA 0
M4	I	VDD2	+3.3V
M5	I	VDD2	+3.3V
M9	-	GND	GND
M10	-	GND	GND
M11	-	GND	GND
M12	-	GND	GND
M16	I	VDD2	+3.3V
M17	I	VDD2	+3.3V
M18	O	B2OUT3	B2 DATA 3
M19	O	B2OUT2	B2 DATA 2
M20	O	B2OUT1	B2 DATA 1
N1	O	R2OUT5	R2 DATA 5
N2	O	R2OUT6	R2 DATA 6
N3	O	R2OUT7	R2 DATA 7
N4	I	VDD2	+3.3V
N5	I	VDD2	+3.3V
N16	I	VDD2	+3.3V
N17	I	VDD2	+3.3V
N18	O	B2OUT6	B2 DATA 6
N19	O	B2OUT5	B2 DATA 5
N20	O	B2OUT4	B2 DATA 4
P1	O	R2OUT2	R2 DATA 2
P2	O	R2OUT3	R2 DATA 3
P3	O	R2OUT4	R2 DATA 4
P4	I	VDD2	+3.3V
P5	I	VDD2	+3.3V
P15	-	GND	GND
P16	-	GND	GND
P17	-	GND	GND
P18	I	VDD2	+3.3V
P19	O	B2OUT8	B2 DATA 8
P20	O	B2OUT7	B2 DATA 7
R1	O	SHCLKR	SAMPLING & HOLD(R) CLOCK
R2	O	R2OUT0	R2 DATA 0
R3	O	R2OUT1	R2 DATA 1
R4	-	GND	GND
R5	-	GND	GND
R6	-	GND	GND
R7	-	GND	GND
R15	-	GND	GND
R16	-	GND	GND
R17	-	GND	GND
R18	O	B1OUT1	B1 DATA 1
R19	O	B1OUT0	B1 DATA 0
R20	O	B2OUT9	B2 DATA 9
T1	O	STSQOR	STSQO(R) PULSE
T2	-	STSQER	(Not used)
T3	O	XFRR	XFR(R) PULSE
T4	-	GND	GND
T5	-	GND	GND
T6	-	GND	GND
T7	-	GND	GND
T8	I	VDD1	+1.2V
T9	I	VDD1	+1.2V
T10	I	VDD1	+1.2V
T11	I	VDD1	+1.2V
T12	I	VDD1	+1.2V
T13	I	VDD1	+1.2V
T14	I	VDD1	+1.2V
T15	-	GND	GND
T16	-	GND	GND
T17	-	GND	GND
T18	O	B1OUT4	B1 DATA 4
T19	O	B1OUT3	B1 DATA 3
T20	O	B1OUT2	B1 DATA 2
U1	-	SHCLKRN	(Not used)
U2	I	VDD2	+3.3V
U3	-	FRPR	(Not used)
U4	-	GND	GND
U5	-	GND	GND
U6	-	GND	GND
U7	-	GND	GND
U8	I	VDD1	+1.2V
U9	I	VDD1	+1.2V
U10	I	VDD1	+1.2V
U11	I	VDD1	+1.2V
U12	I	VDD1	+1.2V
U13	I	VDD1	+1.2V
U14	I	VDD1	+1.2V
U15	-	GND	GND
U16	-	GND	GND
U17	-	GND	GND
U18	O	B1OUT7	B1 DATA 7
U19	O	B1OUT6	B1 DATA 6
U20	O	B1OUT5	B1 DATA 5
V1	-	ENBY1R	(Not used)
V2	-	ENBY2R	(Not used)
V3	-	GND	GND
V4	-	TEST5	(Not used)
V5	O	DIRXR	DIRECTION-X (R/B) CONTROL
V6	O	G1OUT9	G1 DATA 9
V7	I	VDD2	+3.3V
V8	O	G1OUT4	G1 DATA 4
V9	O	G1OUT1	G1 DATA 1
V10	O	G2OUT8	G2 DATA 8
V11	O	G2OUT5	G2 DATA 5
V12	O	G2OUT2	G2 DATA 2
V13	O	SHCLKG	SAMPLING & HOLD(G) CLOCK
V14	O	STSQOG	STSQO(G) PULSE
V15	-	ENBY2G	(Not used)
V16	-	DYOUTG	(Not used)
V17	-	TEST4	(Not used)
V18	-	GND	GND
V19	O	B1OUT9	B1 DATA 9
V20	O	B1OUT8	B1 DATA 8
W1	-	CLYOUTR	(Not used)
W2	-	DXOUTR	(Not used)
W3	-	CLXOUTR	(Not used)
W4	-	ENBX3R	(Not used)
W5	-	DIRXRN	(Not used)
W6	O	G1OUT8	G1 DATA 8
W7	O	G1OUT6	G1 DATA 6
W8	O	G1OUT3	G1 DATA 3
W9	O	G1OUT0	G1 DATA 0
W10	O	G2OUT7	G2 DATA 7
W11	O	G2OUT4	G2 DATA 4
W12	O	G2OUT1	G2 DATA 1
W13	O	XFRG	XFR(G) PULSE
W14	O	FRPG	FRP(G) PULSE
W15	-	ENBY1G	(Not used)
W16	O	CLXOUTG	X DIRECTION CLOCK(G)
W17	I	VDD2	+3.3V
W18	-	ENBX4G	(Not used)
W19	-	DIRXGN	(Not used)
W20	O	DIRKG	DIRECTION-X (G) CONTROL
Y1	-	DYOUTR	(Not used)
Y2	-	ENBX5R	(Not used)
Y3	-	ENBX4R	(Not used)
Y4	-	ENBX2R	(Not used)
Y5	-	ENBX1R	(Not used)
Y6	O	G1OUT7	G1 DATA 7
Y7	O	G1OUT5	G1 DATA 5
Y8	O	G1OUT2	G1 DATA 2
Y9	O	G2OUT9	G2 DATA 9
Y10	O	G2OUT6	G2 DATA 6
Y11	O	G2OUT3	G2 DATA 3
Y12	O	G2OUT0	G2 DATA 0
Y13	-	STSQEG	(Not used)
Y14	-	SHCLKGN	(Not used)
Y15	-	CLYOUTG	(Not used)
Y16	O	DXOUTG	X DIRECTION SHIFT DATA
Y17	-	ENBX5G	(Not used)
Y18	-	ENBX3G	(Not used)
Y19	-	ENBX2G	(Not used)
Y20	O	ENBX1G	ENABLE-X1 PULSE

IC2504 DETAIL BLOCK DIAGRAM

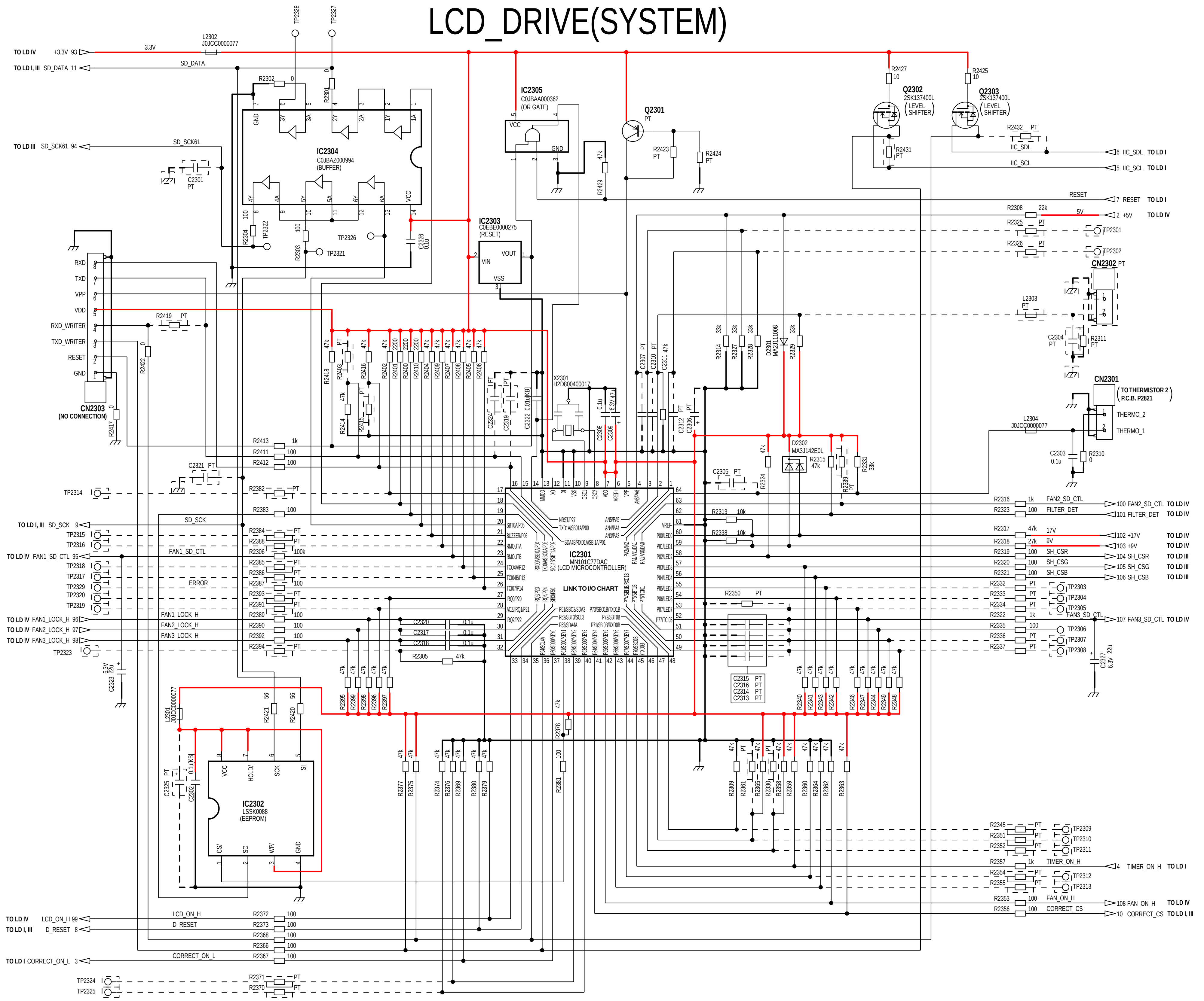

1
2
3
4 GND
5
6 LAMP ON(H)/OFF(L)
7
8 GND
9
10
11
12
13 VCC
14 GND
15
16
17
18
19
20
21 GND
22 GND
23 VCC
24 GND
25 POWER DOWN(L)
26
27 V-SYNC
28 GND
LVDS TO TTL
PARALLEL
CONVERTER
PLL
B DATA
G DATA
R DATA
VCC 56
55
54
53
GND 52
51
50
49
VCC 48
47
46
45
GND 44
43
42
41
VCC 40
39
38
37
GND 36
35
34
33
32
VCC 31
30
H-SYNC 29

LCD DRIVE II SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


LCD_DRIVE(SYSTEM)
TO LD IV +3.3V 93
TO LD I, III SD_DATA 11
TO LD III SD_SCK61 94
3.3V
L2302 J0JCC0000077
SD_DATA
SD_SCK61
TP2328
TP2327
IC2304 C0JBAZ000994 (BUFFER)
IC2305 C0JBAA000362 (OR GATE)
Q2301 PT
IC2303 C0EBE0000275 (RESET)
VIN VOUT VSS
Q2302 2SK137400L (LEVEL SHIFTER)
Q2303 2SK137400L (LEVEL SHIFTER)
R2427 10
R2425 10
IIC_SDL
IIC_SCL
6 IIC_SDL TO LD I
5 IIC_SCL TO LD I
RESET
7 RESET TO LD I
2 +5V TO LD IV
5V
TP2301
TP2302
CN2302 PT
CN2301 (TO THERMISTOR 2 P.C.B. P2821)
THERMO_2
THERMO_1
L2304 J0JCC0000077
CN2303 (NO CONNECTION)
RXD
TXD
VPP
VDD
RXD_WRITER
TXD_WRITER
RESET
GND
X2301 H2D800400017
D2301 MA2Y11100G
D2302 MA3J142E0L
IC2301 MN101C77DAC (LCD MICROCONTROLLER)
LINK TO I/O CHART
TO LD I, III SD_SCK 9
SD_SCK
TO LD IV FAN1_SD_CTL 95
FAN1_SD_CTL
ERROR
TO LD IV FAN1_LOCK_H 96
TO LD IV FAN2_LOCK_H 97
TO LD IV FAN3_LOCK_H 98
FAN1_LOCK_H
FAN2_LOCK_H
FAN3_LOCK_H
100 FAN2_SD_CTL TO LD IV
101 FILTER_DET TO LD IV
102 +17V TO LD IV
103 +9V TO LD IV
104 SH_CSR TO LD III
105 SH_CSG TO LD III
106 SH_CSB TO LD III
107 FAN3_SD_CTL TO LD IV
FAN2_SD_CTL
FILTER_DET
17V
9V
SH_CSR
SH_CSG
SH_CSB
FAN3_SD_CTL
IC2302 LSSK0088 (EEPROM)
L2301 J0JCC0000077
VCC HOLD/ SCK SI CS/ SO WP/ GND
TIMER_ON_H
4 TIMER_ON_H TO LD I
FAN_ON_H
CORRECT_CS
108 FAN_ON_H TO LD IV
10 CORRECT_CS TO LD I, III
TO LD IV LCD_ON_H 99
TO LD I, III D_RESET 8
TO LD I CORRECT_ON_L 3
LCD_ON_H
D_RESET
CORRECT_ON_L
TP2324
TP2325

LINK TO VOLTAGE CHART

LSJB3212
LCD DRIVE II SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

I/O CHART OF IC2301

Pin No.	I/O	Signal Name	Description
1	-	AN3 / PA3	(Not used)
2	I	AN4 / PA4	TEMPERATURE DATA3 (FROM THERMISTOR 1 P. C. B.)
3	-	AN5 / PA5	(Not used)
4	I	AN6 / PA6	+5V LINE DETECT ✻1
5	-	NC	(Not used)
6	I	VREF+	V-REF FOR IC2301
7	I	VDD	VDD (+3.3V)
8	O	OSC2	8MHz OSCILLATION
9	I	OSC1	8MHz OSCILLATION
10	-	VSS	GND
11	-	XI	(Not used)
12	-	XO	(Not used)
13	-	MMOD	(Not used)
14	I	NRST	RESET (L)
15	O	TXD	RS232C TRANSMITTED DATA
16	I	RXD	RS232C RECEIVED DATA
17	-	SCL	(Not used)
18	O	SD_DATA	SERIAL DATA 0
19	I	RXD0A	SERIAL DATA 1
20	O	SD_LOCK	SERIAL CLOCK
21	-	BUZZER	(Not used)
22	-	RMOUTA	(Not used)
23	O	FAN1_SD_CTL	FAN1 SPEED CONTROL
24	-	TCO4A / P12	(Not used)
25	-	FAN2_SD_CTL	(Not used)
26	-	ERROR	(Not used)
27	-	IRQ0 / P20	(Not used)
28	-	ACZ / IRQ1 / P21	(Not used)
29	I	FAN1_LOCK_H	FAN1 LOCK (H)
30	I	FAN2_LOCK_H	FAN2 LOCK (H)
31	I	FAN3_LOCK_H	FAN3 LOCK (H)
32	-	DIR_Y	(Not used)

Pin No.	I/O	Signal Name	Description
33	O	LCD_ON_H	+15.5V (LCD DRIVE) ON (H)
34	O	D_RESET	RESET (L)
35	I	RXD0B	I^2C SERIAL DATA
36	I	WRITER_CLK	I^2C SERIAL CLOCK
37	O	CORRECT_ON_L	NON-UNIFORMITY COLOR CORRECT ON (L)
38	O	EEP_CS	EEPROM CS (L)
39	-	DIR_X	(Not used)
40	-	XDIR_X	(Not used)
41	O	CORRECT_CS	IC2503 / IC2007 / IC2008 / IC2009 CS(L)
42	O	FAN1_ON_H	FAN ON (H)
43	-	FAN2_ON_H	(Not used)
44	-	FAN3_ON_H	(Not used)
45	I	TIMER_ON_H	LAMP ON (H) / OFF (L)
46	-	D4H / D5L	(Not used)
47	-	CHAMP_L	(Not used)
48	-	P73 / SB01B / TXD18	(Not used)
49	-	THERMO_IN	(Not used)
50	-	PA1 / AN1 / DA1	(Not used)
51	-	15.5ADJ	(Not used)
52	O	P77 / TCI05	FAN3 SPEED CONTROL
53	-	P87 / LED7	(Not used)
54	-	P86 / LED6	(Not used)
55	-	P85 / LED5	(Not used)
56	O	P84 / LED4	SAMPLING HOLD BLUE CS (L)
57	O	P83 / LED3	SAMPLING HOLD GREEN CS (L)
58	O	P82 / LED2	SAMPLING HOLD RED CS (L)
59	I	P81 / LED1	+9V LINE DETECT ✻1
60	I	P80 / LED0	+17V LINE DETECT ✻1
61	-	VREF-	(Not used)
62	I	P76 / TC101	FILTER ERROR DETECTION
63	O	P75 / SBT18	FAN2 SPEED CONTROL
64	I	P74 / SB11B / RXD1B	TEMPERATURE DATA 1 (FROM THERMISTOR 2 P. C. B.)

✻1

Pin No.	Description
4	VOLTAGE DETECTION FOR ERROR LED INDICATION WHEN THE VOLTAGE BECOMES LESS THAN 2.5V.
59	VOLTAGE DETECTION FOR ERROR LED INDICATION WHEN THE VOLTAGE BECOMES LESS THAN 6.5V.
60	VOLTAGE DETECTION FOR ERROR LED INDICATION WHEN THE VOLTAGE BECOMES LESS THAN 12V.

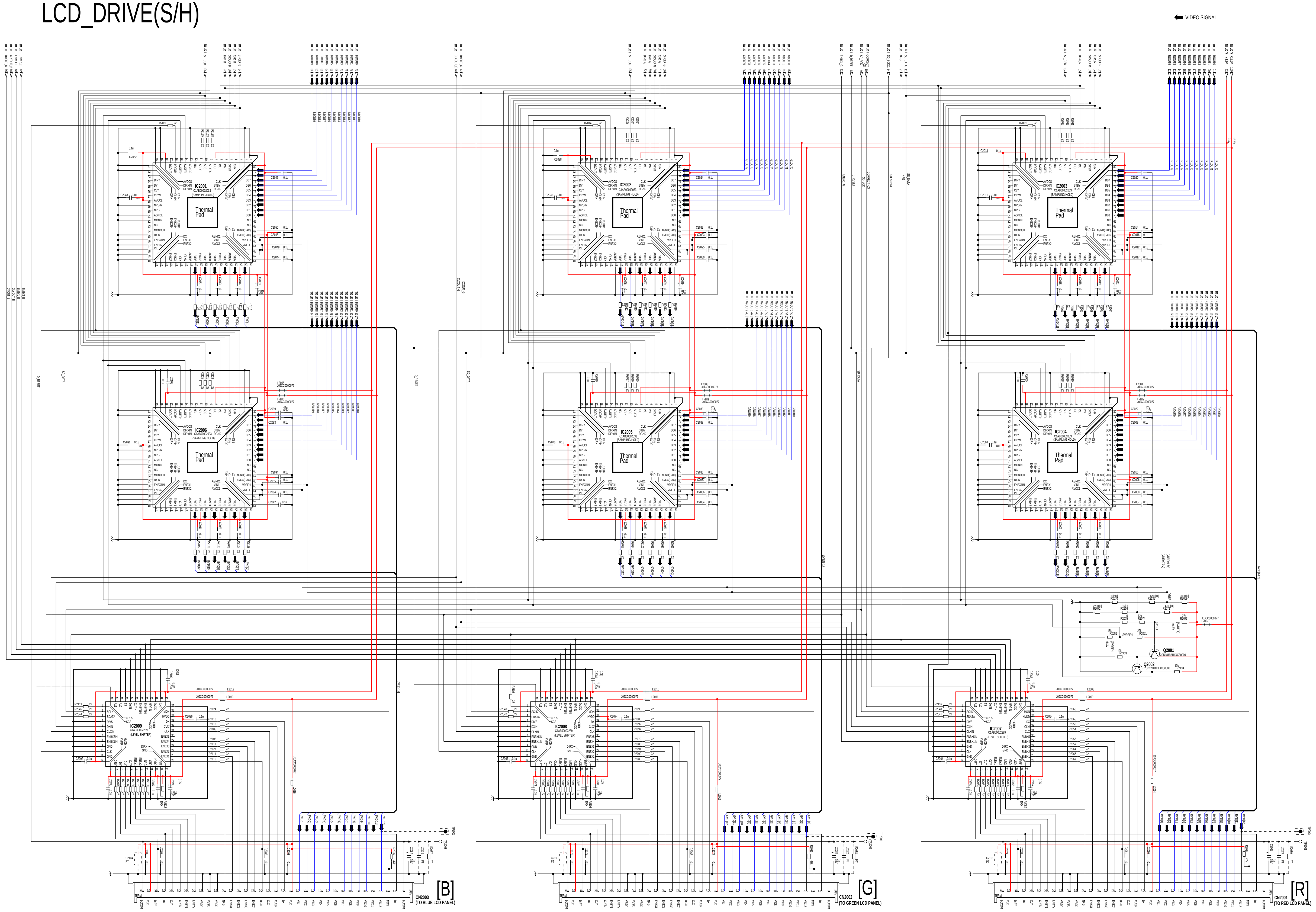
LCD DRIVE III SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.

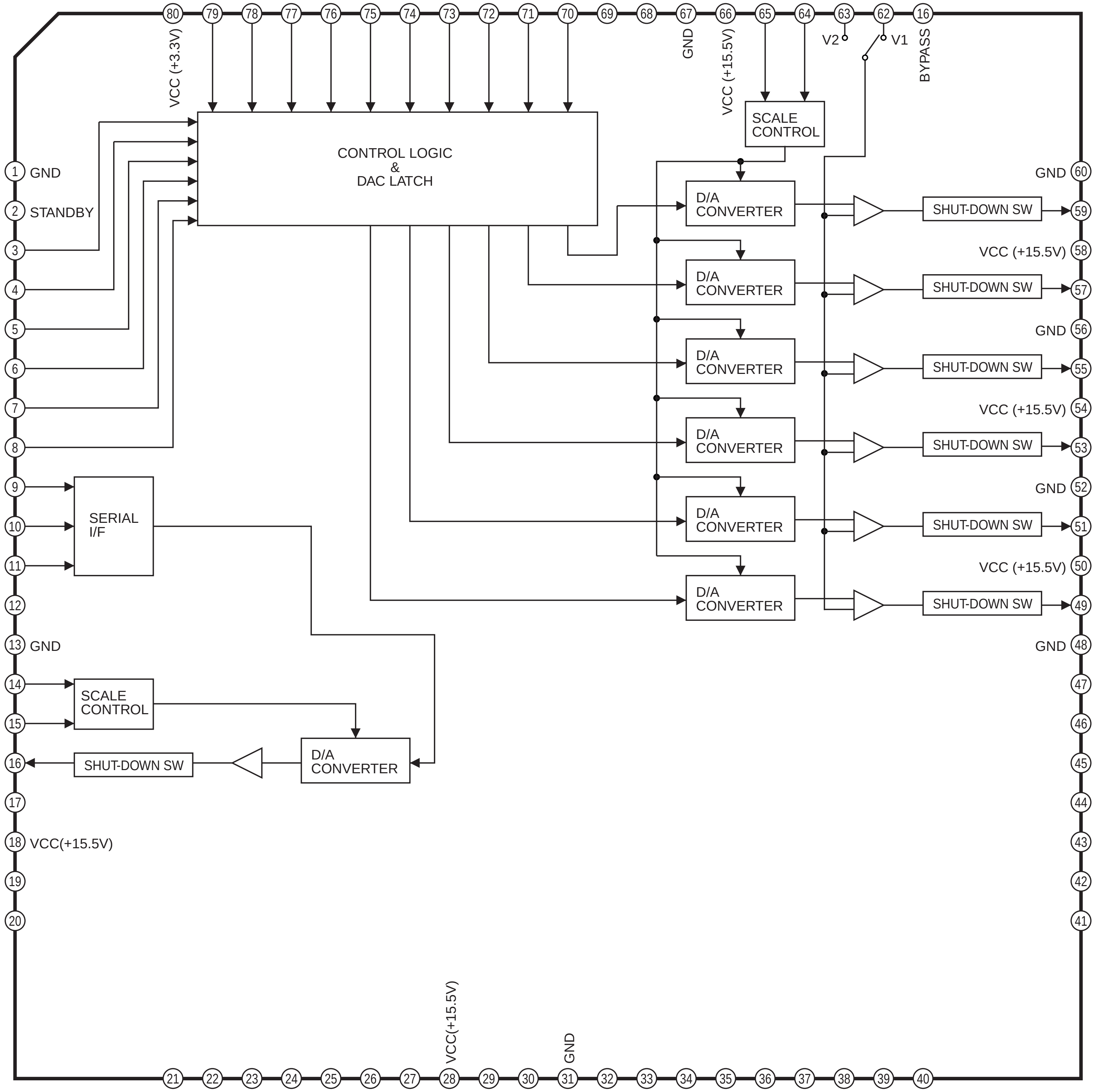
LCD_DRIVE(S/H)


VIDEO SIGNAL
IC2001 C1AB00002202 (SAMPLING HOLD)
IC2002 C1AB00002202 (SAMPLING HOLD)
IC2003 C1AB00002202 (SAMPLING HOLD)
IC2006 C1AB00002202 (SAMPLING HOLD)
IC2005 C1AB00002202 (SAMPLING HOLD)
IC2004 C1AB00002202 (SAMPLING HOLD)
Thermal Pad
IC2009 C1AB00002299 (LEVEL SHIFTER)
IC2008 C1AB00002299 (LEVEL SHIFTER)
IC2007 C1AB00002299 (LEVEL SHIFTER)
Q2001
Q2002
[B]
CN2003 (TO BLUE LCD PANEL)
[G]
CN2002 (TO GREEN LCD PANEL)
[R]
CN2001 (TO RED LCD PANEL)

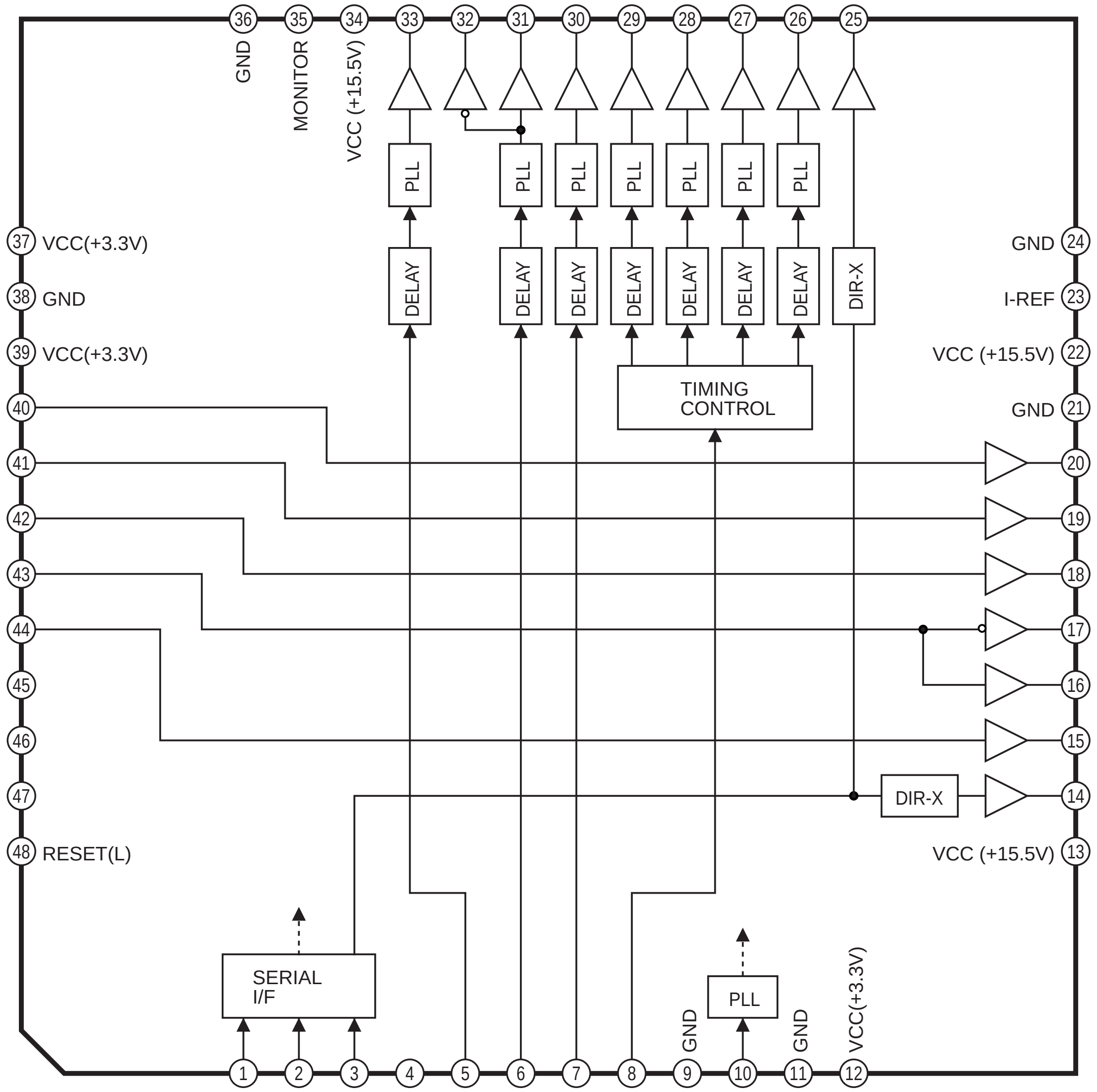
LINK TO VOLTAGE CHART

LSJB3212
LCD DRIVE III SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

IC2001 / IC2002 / IC2003 / IC2004 / IC2005 / IC2006 DETAIL BLOCK DIAGRAM


VCC (+3.3V)
GND
VCC (+15.5V)
V2
V1
BYPASS
SCALE CONTROL
CONTROL LOGIC & DAC LATCH
D/A CONVERTER
SHUT-DOWN SW
GND
STANDBY
GND
VCC (+15.5V)
SERIAL I/F
SCALE CONTROL
VCC(+15.5V)
VCC(+15.5V)
GND

IC2007 / IC2008 / IC2009 DETAIL BLOCK DIAGRAM

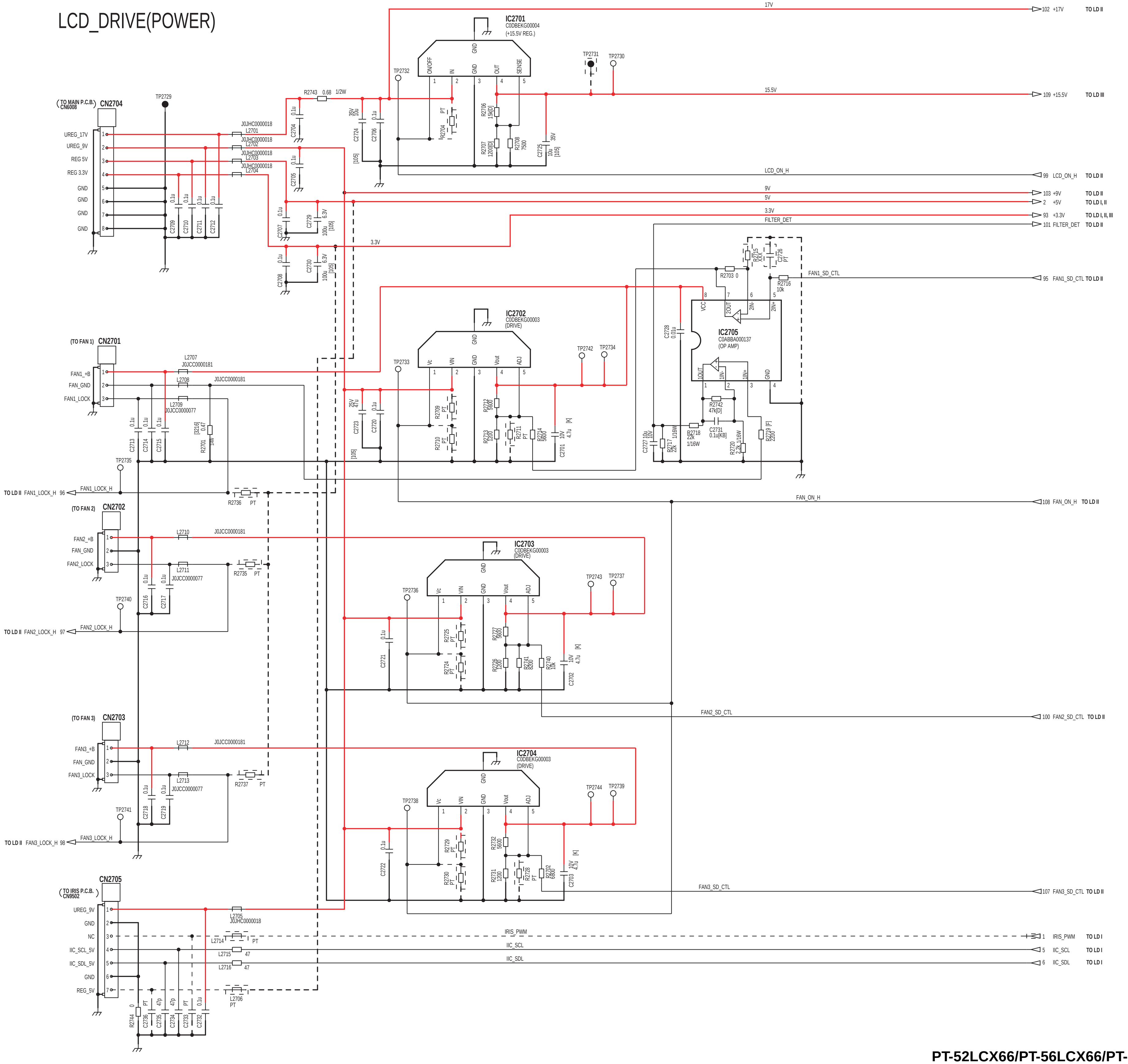

GND
MONITOR
VCC (+15.5V)
PLL
DELAY
DIR-X
TIMING CONTROL
VCC(+3.3V)
GND
VCC(+3.3V)
RESET(L)
GND
I-REF
VCC (+15.5V)
GND
VCC (+15.5V)
SERIAL I/F
PLL
GND
GND
VCC(+3.3V)

LCD DRIVE IV SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


LCD_DRIVE(POWER)
(TO MAIN P.C.B. CN6008) CN2704
UREG_17V
UREG_9V
REG 5V
REG 3.3V
GND
TP2729
R2743 0.68 1/2W
J0JHC0000018 L2701
J0JHC0000018 L2702
J0JHC0000018 L2703
J0JHC0000018 L2704
IC2701
C0DBEKG00004
(+15.5V REG.)
ON/OFF
IN
GND
OUT
SENSE
TP2732
TP2731
TP2730
R2706 15k[D]
R2707 1200[D]
R2708 7500
C2725 35V 10u [105]
17V
102 +17V TO LD II
15.5V
109 +15.5V TO LD III
LCD_ON_H
99 LCD_ON_H TO LD II
9V
103 +9V TO LD II
5V
2 +5V TO LD I, II
3.3V
93 +3.3V TO LD I, II, III
FILTER_DET
101 FILTER_DET TO LD II
IC2705
C0ABBA000137
(OP AMP)
R2703 0
R2716 10k
FAN1_SD_CTL
95 FAN1_SD_CTL TO LD II
IC2702
C0DBEKG00003
(DRIVE)
Vc
VIN
GND
Vout
ADJ
TP2733
TP2742
TP2734
(TO FAN 1) CN2701
FAN1_+B
FAN_GND
FAN1_LOCK
L2707 J0JCC0000181
L2708 J0JCC0000181
L2709 J0JCC0000077
TP2735
TO LD II FAN1_LOCK_H 96
FAN1_LOCK_H
R2736 PT
FAN_ON_H
108 FAN_ON_H TO LD II
(TO FAN 2) CN2702
FAN2_+B
FAN_GND
FAN2_LOCK
L2710 J0JCC0000181
L2711 J0JCC0000077
R2735 PT
TP2740
TO LD II FAN2_LOCK_H 97
FAN2_LOCK_H
IC2703
C0DBEKG00003
(DRIVE)
TP2736
TP2743
TP2737
FAN2_SD_CTL
100 FAN2_SD_CTL TO LD II
(TO FAN 3) CN2703
FAN3_+B
FAN_GND
FAN3_LOCK
L2712 J0JCC0000181
L2713 J0JCC0000077
R2737 PT
TP2741
TO LD II FAN3_LOCK_H 98
FAN3_LOCK_H
IC2704
C0DBEKG00003
(DRIVE)
TP2738
TP2744
TP2739
FAN3_SD_CTL
107 FAN3_SD_CTL TO LD II
CN2705
(TO IRIS P.C.B. CN9502)
UREG_9V
GND
NC
IIC_SCL_5V
IIC_SDL_5V
GND
REG_5V
L2705 J0JHC0000018
L2714 PT
L2715 47
L2716 47
L2706 PT
R2744 0
IRIS_PWM
1 IRIS_PWM TO LD I
IIC_SCL
5 IIC_SCL TO LD I
IIC_SDL
6 IIC_SDL TO LD I

LINK TO VOLTAGE CHART

LSJB3212
LCD DRIVE IV SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

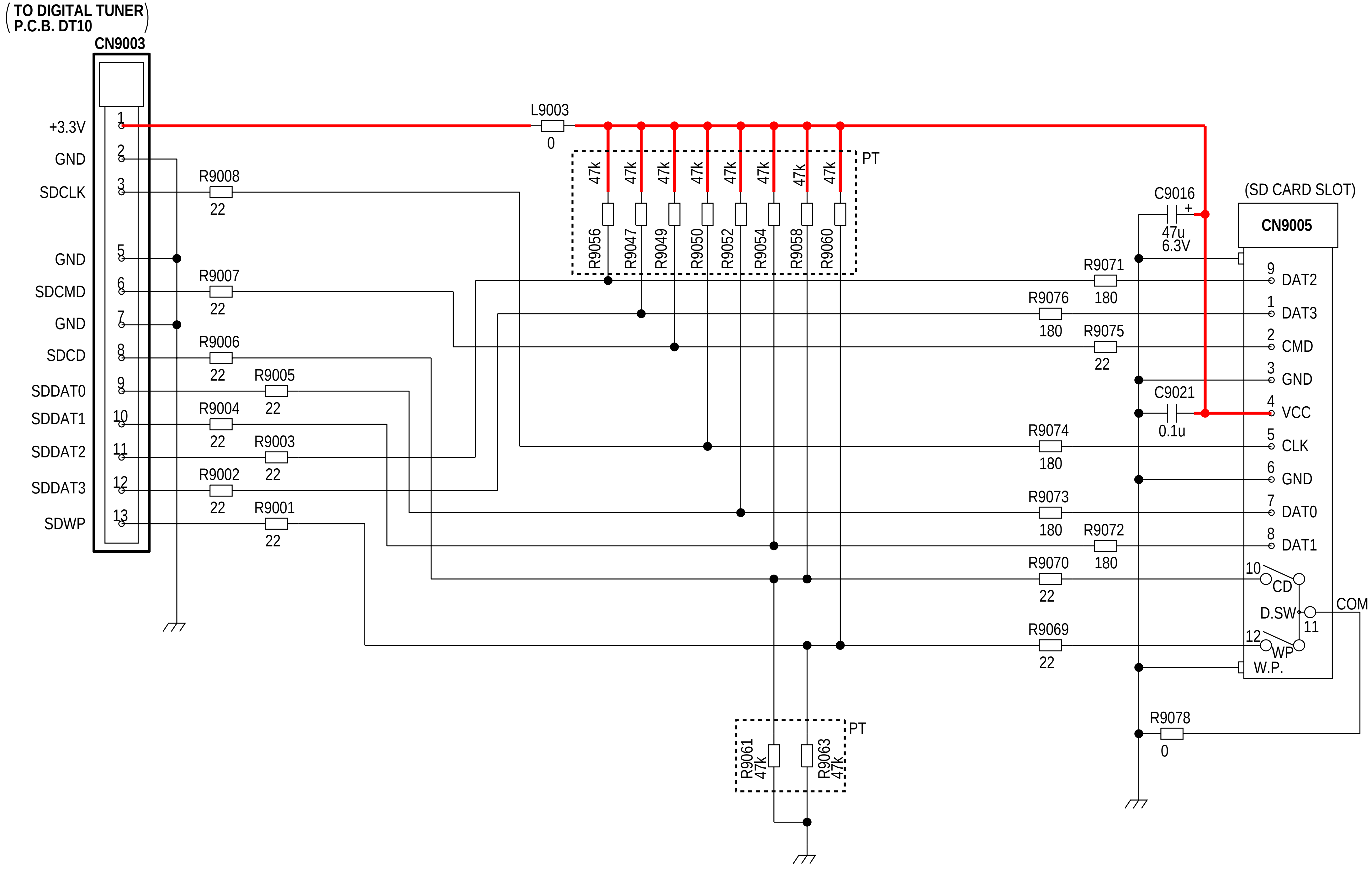
13.7. SD CARD SCHEMATIC DIAGRAM

SD CARD SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


TO DIGITAL TUNER P.C.B. DT10
CN9003
+3.3V 1
GND 2
SDCLK 3
GND 5
SDCMD 6
GND 7
SDCD 8
SDDAT0 9
SDDAT1 10
SDDAT2 11
SDDAT3 12
SDWP 13
R9008 22
R9007 22
R9006 22
R9005 22
R9004 22
R9003 22
R9002 22
R9001 22
L9003 0
47k 47k 47k 47k 47k 47k 47k 47k
R9056 R9047 R9049 R9050 R9052 R9054 R9058 R9060
PT
C9016 47u 6.3V
C9021 0.1u
R9071 180
R9076 180
R9075 22
R9074 180
R9073 180
R9072 180
R9070 22
R9069 22
R9078 0
R9061 47k
R9063 47k
PT
(SD CARD SLOT)
CN9005
9 DAT2
1 DAT3
2 CMD
3 GND
4 VCC
5 CLK
6 GND
7 DAT0
8 DAT1
10 CD
D.SW 11
12 WP
W.P.
COM

LSJB3199
SD CARD SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

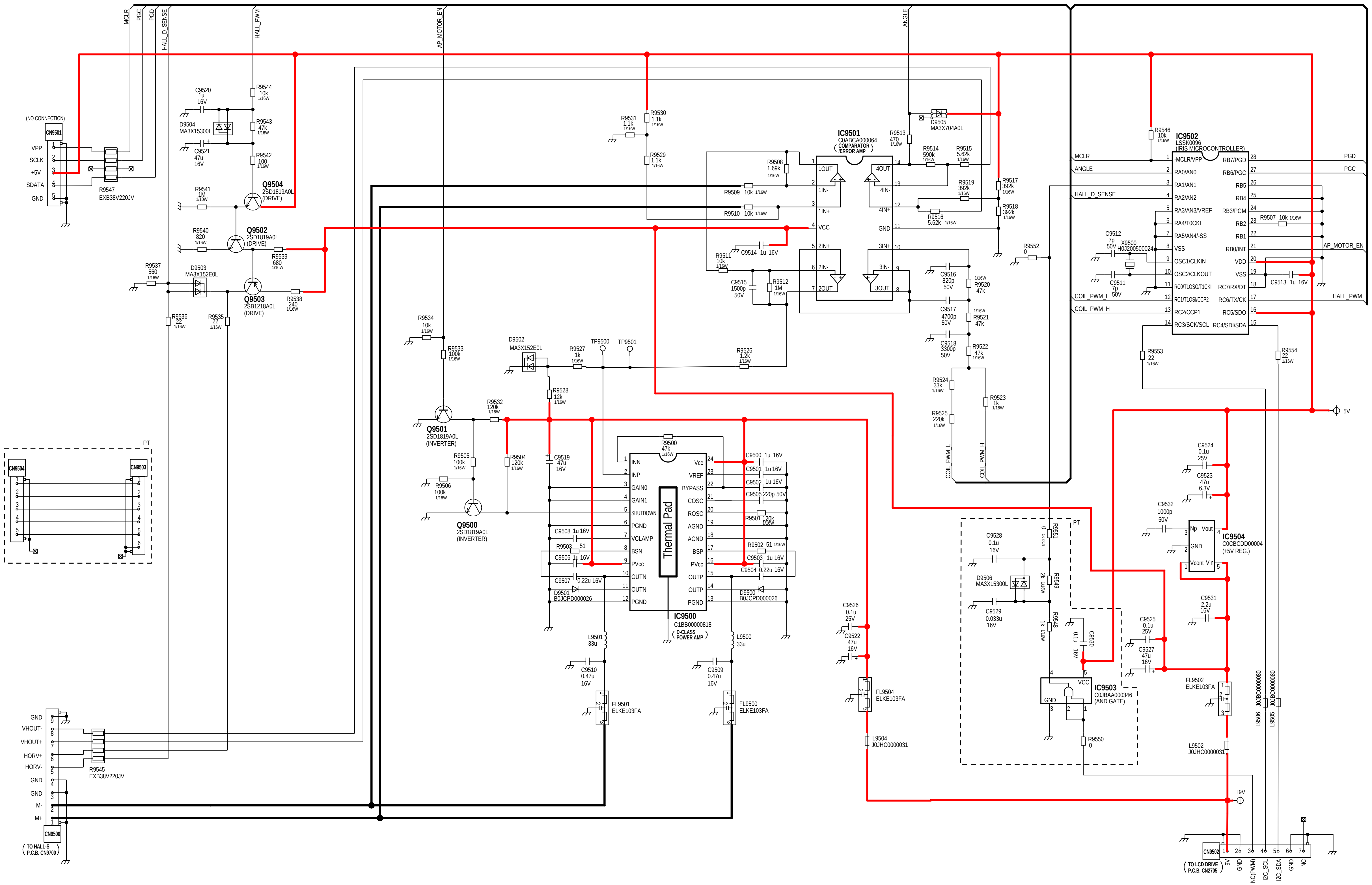
13.8. IRIS SCHEMATIC DIAGRAM

IRIS SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


MCLR
PGC
PGD
HALL_D_SENSE
HALL_PWM
AP_MOTOR_EN
ANGLE
(NO CONNECTION)
CN9501
VPP
SCLK
+5V
SDATA
GND
R9547
EXB38V220JV
C9520 1u 16V
D9504 MA3X15300L
C9521 47u 16V
R9544 10k
R9543 47k
R9542 100
Q9504 2SD1819A0L (DRIVE)
R9541 1M
R9540 820
Q9502 2SD1819A0L (DRIVE)
R9539 680
R9537 560
D9503 MA3X152E0L
Q9503 2SB1218A0L (DRIVE)
R9538 240
R9536 22
R9535 22
R9531 1.1k
R9530 1.1k
R9529 1.1k
IC9501
C0ABCA000064
COMPARATOR /ERROR AMP
1OUT
1IN-
1IN+
VCC
2IN+
2IN-
2OUT
4OUT
4IN-
4IN+
GND
3IN+
3IN-
3OUT
R9508 1.69k
R9509 10k
R9510 10k
R9511 10k
C9514 1u 16V
C9515 1500p 50V
R9512 1M
R9513 470
D9505 MA3X704A0L
R9514 590k
R9515 5.62k
R9516 5.62k
R9519 392k
R9517 392k
R9518 392k
C9516 820p 50V
R9520 47k
C9517 4700p 50V
R9521 47k
C9518 3300p 50V
R9522 47k
R9524 33k
R9523 1k
R9525 220k
COIL_PWM_L
COIL_PWM_H
R9552 0
R9546 10k
IC9502
LSSK0096
(IRIS MICROCONTROLLER)
MCLR/VPP
RA0/AN0
RA1/AN1
RA2/AN2
RA3/AN3/VREF
RA4/T0CKI
RA5/AN4/SS
VSS
OSC1/CLKIN
OSC2/CLKOUT
RC0/T1OSO/T1CKI
RC1/T1OSI/CCP2
RC2/CCP1
RC3/SCK/SCL
RB7/PGD
RB6/PGC
RB5
RB4
RB3/PGM
RB2
RB1
RB0/INT
VDD
VSS
RC7/RX/DT
RC6/TX/CK
RC5/SDO
RC4/SDI/SDA
C9512 7p 50V
X9500 H0J200500024
C9511 7p 50V
R9507 10k
C9513 1u 16V
R9553 22
R9554 22
5V
R9534 10k
R9533 100k
Q9501 2SD1819A0L (INVERTER)
R9532 120k
R9505 100k
R9506 100k
Q9500 2SD1819A0L (INVERTER)
R9504 120k
D9502 MA3X152E0L
R9527 1k
TP9500
TP9501
R9528 12k
C9519 47u 16V
R9526 1.2k
R9500 47k
IC9500
C1BB00000818
D-CLASS POWER AMP
Thermal Pad
INN
INP
GAIN0
GAIN1
SHUTDOWN
PGND
VCLAMP
BSN
PVcc
OUTN
OUTN
PGND
Vcc
VREF
BYPASS
COSC
ROSC
AGND
AGND
BSP
PVcc
OUTP
OUTP
PGND
C9500 1u 16V
C9501 1u 16V
C9502 1u 16V
C9505 220p 50V
R9501 120k
R9502 51
C9503 1u 16V
C9504 0.22u 16V
D9500 B0JCPD000026
C9508 1u 16V
R9503 51
C9506 1u 16V
C9507 0.22u 16V
D9501 B0JCPD000026
L9501 33u
L9500 33u
C9510 0.47u 16V
C9509 0.47u 16V
FL9501 ELKE103FA
FL9500 ELKE103FA
C9526 0.1u 25V
C9522 47u 16V
FL9504 ELKE103FA
L9504 J0JHC0000031
PT
CN9504
CN9503
GND
VHOUT-
VHOUT+
HORV+
HORV-
GND
GND
M-
M+
R9545 EXB38V220JV
CN9500
TO HALL-S P.C.B. CN9700
C9528 0.1u 16V
D9506 MA3X15300L
C9529 0.033u 16V
R9551 0
R9549 2k
R9548 1k
C9530 0.1u 16V
IC9503
C0JBAA000346
(AND GATE)
VCC
GND
R9550 0
C9524 0.1u 25V
C9523 47u 6.3V
C9532 1000p 50V
IC9504
C0CBCDD00004
(+5V REG.)
Np
Vout
GND
Vcont
Vin
C9531 2.2u 16V
C9525 0.1u 25V
C9527 47u 16V
FL9502 ELKE103FA
L9502 J0JHC0000031
L9506 J0JBC0000080
L9505 J0JBC0000080
I9V
CN9502
TO LCD DRIVE P.C.B. CN2705
9V
GND
NC(PWM)
I2C_SCL
I2C_SDA
GND
NC

LSJB3210

IRIS SCHEMATIC DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

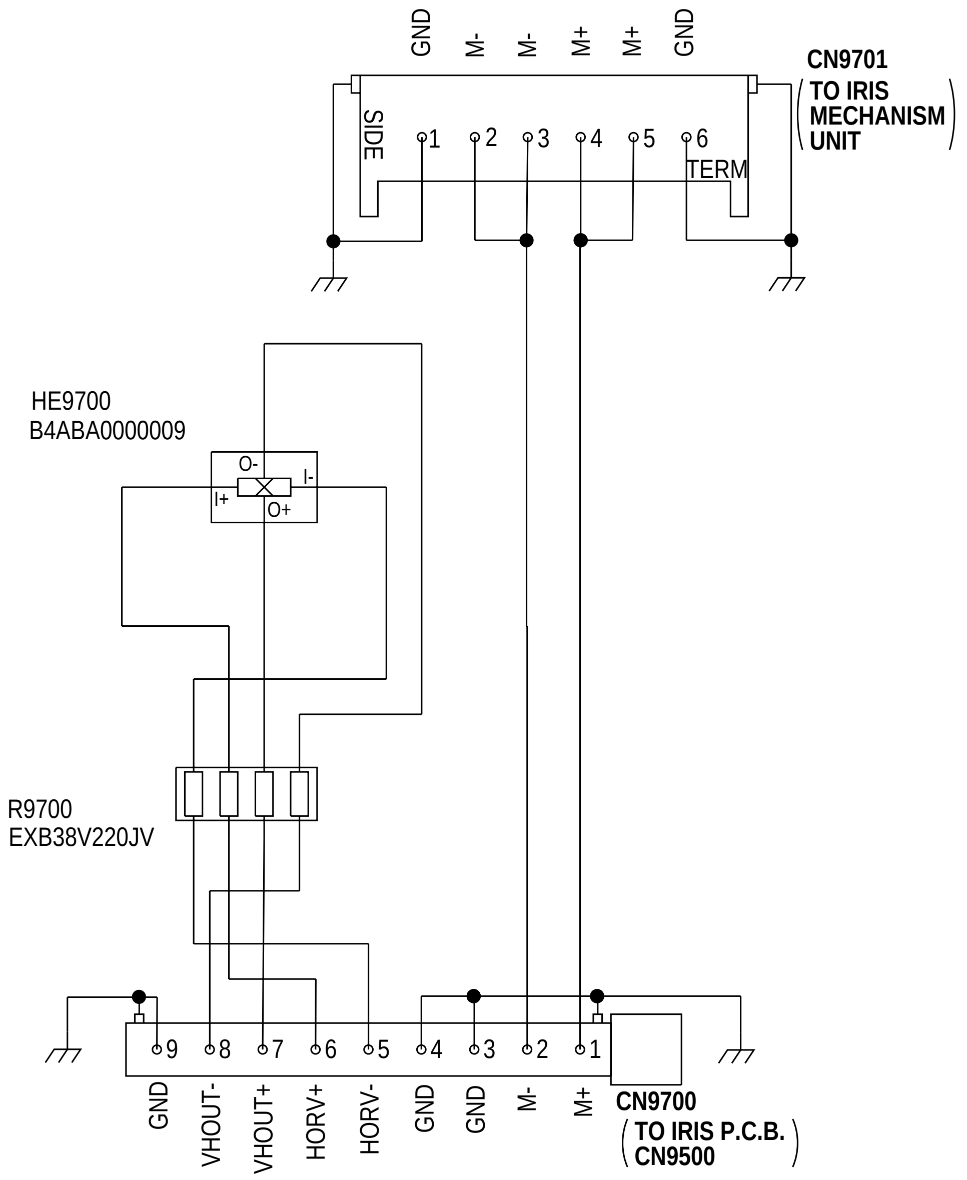
13.9. HALL-S SCHEMATIC DIAGRAM

HALL-S SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.


GND
M-
M-
M+
M+
GND
CN9701
TO IRIS MECHANISM UNIT
SIDE
1 2 3 4 5 6
TERM
HE9700
B4ABA0000009
O-
I-
I+
O+
R9700
EXB38V220JV
9 8 7 6 5 4 3 2 1
GND
VHOUT-
VHOUT+
HORV+
HORV-
GND
GND
M-
M+
CN9700
TO IRIS P.C.B. CN9500

LSJB3215
HALL-S SCHEMATIC DIAGRAM

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

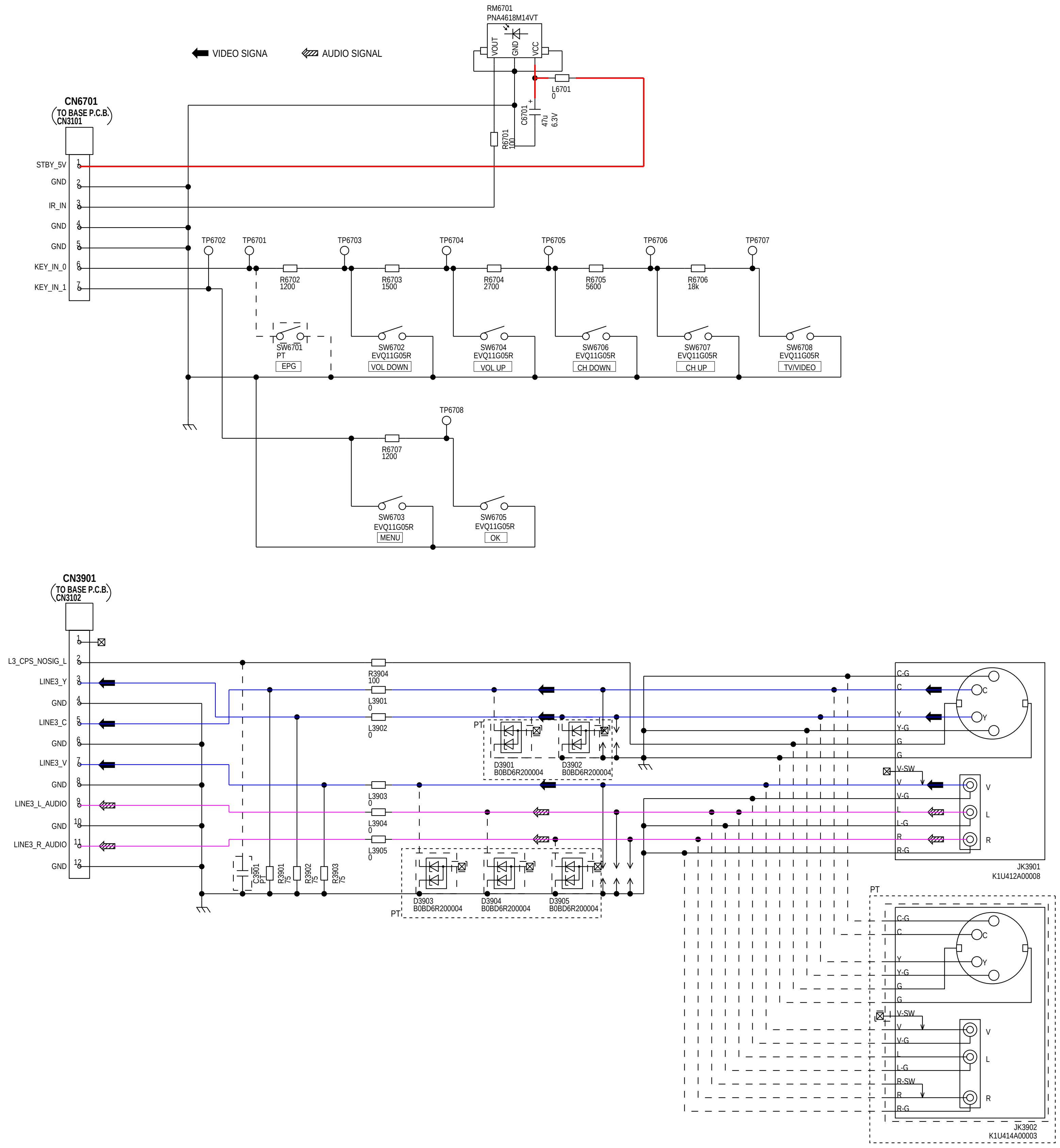
13.10. FRONT JACK / OPERATION SCHEMATIC DIAGRAM

FRONT JACK / OPERATION SCHEMATIC DIAGRAM

NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
PARTS MARKED "PT" ARE NOT USED.



VIDEO SIGNA
AUDIO SIGNAL
RM6701
PNA4618M14VT
VOUT
GND
VCC
L6701
0
C6701
47u
6.3V
R6701
100
CN6701
(TO BASE P.C.B. CN3101)
STBY_5V 1
GND 2
IR_IN 3
GND 4
GND 5
KEY_IN_0 6
KEY_IN_1 7
TP6702
TP6701
TP6703
TP6704
TP6705
TP6706
TP6707
R6702 1200
R6703 1500
R6704 2700
R6705 5600
R6706 18k
SW6701 PT EPG
SW6702 EVQ11G05R VOL DOWN
SW6704 EVQ11G05R VOL UP
SW6706 EVQ11G05R CH DOWN
SW6707 EVQ11G05R CH UP
SW6708 EVQ11G05R TV/VIDEO
TP6708
R6707 1200
SW6703 EVQ11G05R MENU
SW6705 EVQ11G05R OK
CN3901
(TO BASE P.C.B. CN3102)
1
L3_CPS_NOSIG_L 2
LINE3_Y 3
GND 4
LINE3_C 5
GND 6
LINE3_V 7
GND 8
LINE3_L_AUDIO 9
GND 10
LINE3_R_AUDIO 11
GND 12
R3904 100
L3901 0
L3902 0
L3903 0
L3904 0
L3905 0
PT
D3901 B0BD6R200004
D3902 B0BD6R200004
C3901 PT
R3901 75
R3902 75
R3903 75
D3903 B0BD6R200004
D3904 B0BD6R200004
D3905 B0BD6R200004
C-G
C
Y
Y-G
G
G
V-SW
V
V-G
L
L-G
R
R-G
JK3901
K1U412A00008
C-G
C
Y
Y-G
G
G
V-SW
V
V-G
L
L-G
R-SW
R
R-G
JK3902
K1U414A00003

LSJB3200
FRONT JACK / OPERATION SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16
/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

13.11. POWER SWITCH / THERMISTOR 2 / COVER SWITCH SCHEMATIC DIAGRAMS

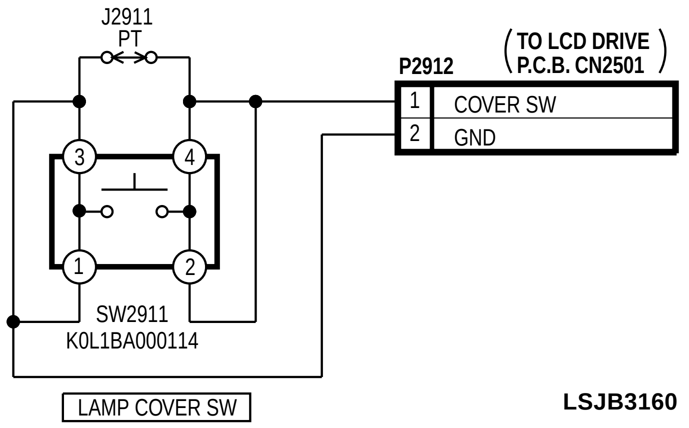
NOTE: For placing a purchase order of the parts,
be sure to use the part number listed in the parts list.
Do not use the part number on this diagram.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

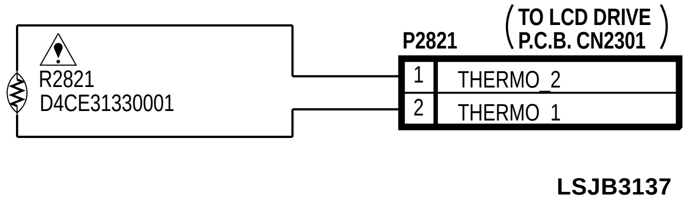
NOTE:
PARTS MARKED "PT" ARE NOT USED.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

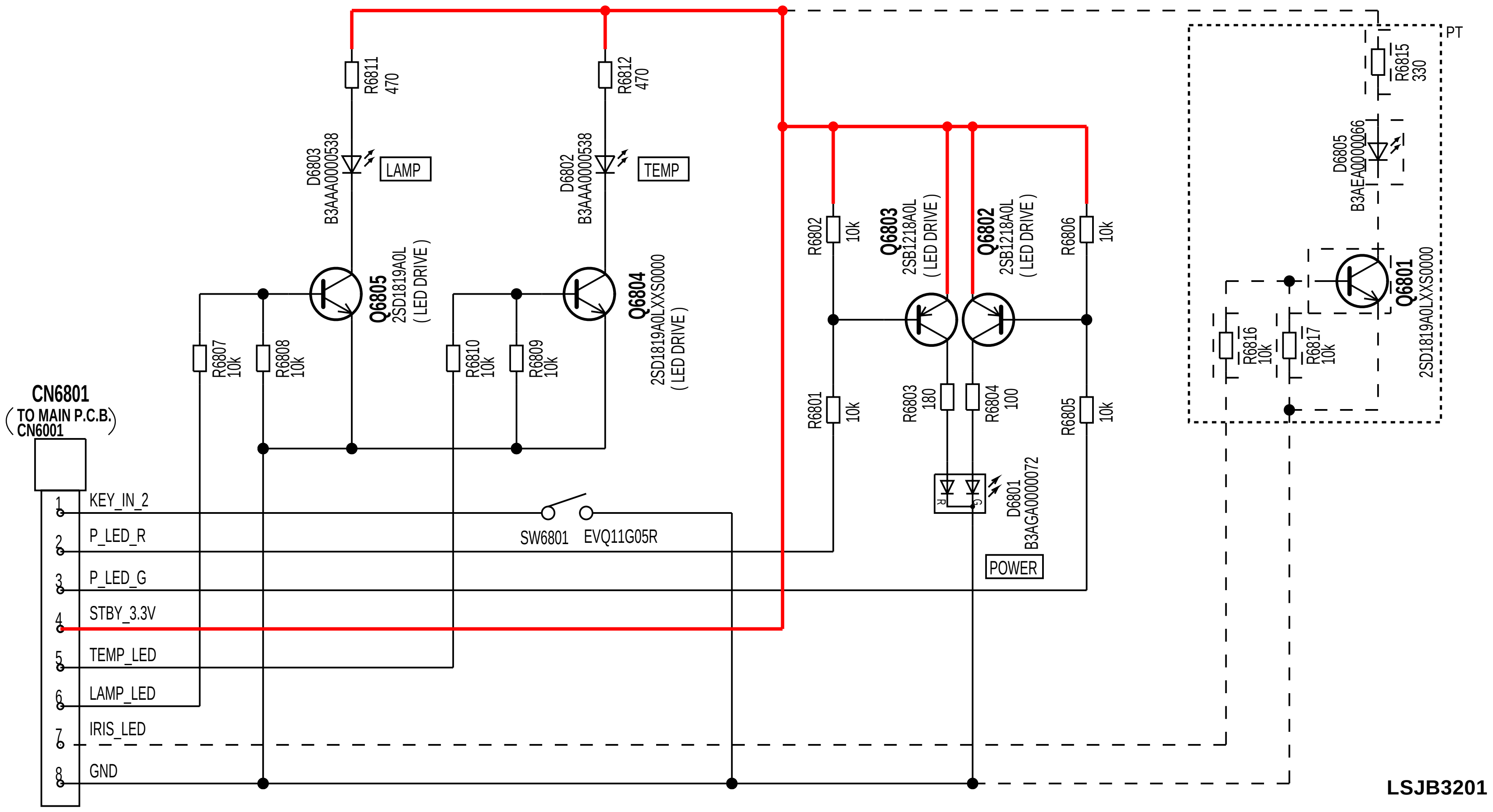
COVER SWITCH SCHEMATIC DIAGRAM


J2911
PT
P2912
TO LCD DRIVE P.C.B. CN2501
1 COVER SW
2 GND
3
4
1
2
SW2911
K0L1BA000114
LAMP COVER SW
LSJB3160

THERMISTOR 2 SCHEMATIC DIAGRAM


R2821
D4CE31330001
P2821
TO LCD DRIVE P.C.B. CN2301
1 THERMO_2
2 THERMO_1
LSJB3137

POWER SWITCH SCHEMATIC DIAGRAM


R6811 470
R6812 470
D6803 B3AAA0000538
LAMP
D6802 B3AAA0000538
TEMP
Q6805 2SD1819A0L (LED DRIVE)
Q6804 2SD1819A0LXXS0000 (LED DRIVE)
R6807 10k
R6808 10k
R6810 10k
R6809 10k
R6802 10k
Q6803 2SB1218A0L (LED DRIVE)
Q6802 2SB1218A0L (LED DRIVE)
R6806 10k
R6801 10k
R6803 180
R6804 100
R6805 10k
D6801 B3AGA0000072
POWER
PT
R6815 330
D6805 B3AEA0000066
Q6801 2SD1819A0LXXS0000
R6816 10k
R6817 10k
CN6801
TO MAIN P.C.B. CN6001
1 KEY_IN_2
2 P_LED_R
3 P_LED_G
4 STBY_3.3V
5 TEMP_LED
6 LAMP_LED
7 IRIS_LED
8 GND
SW6801 EVQ11G05R
LSJB3201

LINK TO VOLTAGE CHART
COVER SWITCH SCHEMATIC DIAGRAM
POVER SWITCH SCHEMATIC DIAGRAM
THERMISTOR 2 SCHEMATIC DIAGRAM
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16
/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

13.12. VOLTAGE CHART

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

MAIN P.C.B.

PIN NO.	VOLTAGE
IC1100	
1	3.5
2	3.5
3	9.0
4	9.0
5	9.0
6	9.0
7	5.8
8	9.4
9	0
10	2.5
11	5.0
12	1.8
13	2.5
14	4.5
15	3.5
16	3.6
17	0
18	0
19	9.0
20	6.5
21	3.2
22	3.5
23	3.5
24	3.5
25	3.5
26	0
IC1102	
1	9.0
2	5.2
3	0
4	1.1
5	9.0
IC1103	
1	9.0
2	2.6
3	0
4	1.1
5	9.0
IC1104	
1	7.1
2	0
3	1.4
4	5.1
5	7.1
IC1105	
1	4.7
2	0
3	1.5
4	3.4
5	4.7
IC5000	
1	0
2	0
3	---
4	0
5	0
6	3.5
7	1.9
8	1.3
9	1.4
10	1.7
11	0
12	1.9
13	0
14	0.2
15	---
16	0
17	0
18	3.5
19	0
20	---
21	---
22	0
23	1.4
24	0.6
25	0.5
26	0.5
27	0.5
28	0.5
29	0.6
30	0.5
31	1.6
32	0
33	0
34	---
35	0.8
36	0.8
37	---
38	1.5
39	1.9
40	0
41	0.5
42	0.8
43	---
44	---
45	---
46	0.8
47	1.9
48	1.9
49	0
50	0
51	0
52	0.3
53	0
54	0
55	0
56	0
57	0
58	0
59	1.0
60	0
61	1.8
62	1.2
63	3.4
64	1.7
65	2.0
66	0
67	0.9
68	1.2
69	0.6
70	0
71	0
72	1.6
73	0
74	1.6
75	0
76	2.0
77	1.1
78	3.1
79	0
80	0
81	2.9
82	3.0
83	0
84	0
85	0
86	0
87	0
88	0
89	0
90	1.9
91	1.5
92	1.9
93	1.1
94	1.0
95	0
96	0
97	0
98	0.8
99	0
100	0
IC5003	
1	3.5
2	3.5
3	0
4	2.6
5	1.4
IC5004	
1	2.6
2	0
3	2.6
4	---
5	1.3
IC5005	
1	2.6
2	0
3	2.6
4	---
5	1.9
IC5006	
1	3.4
2	---
3	0
4	2.1
5	5.1
6	---
7	---
8	5.0
IC5007	
1	2.6
2	0
3	2.6
4	---
5	1.9
IC5008	
1	0
2	2.2
3	0
4	0
5	2.4
6	---
7	3.5
8	3.5
IC5009	
1	2.5
2	2.5
3	1.3
4	---
5	0
IC5010	
1	2.6
2	0
3	2.6
4	---
5	1.3
IC5011	
1	1.8
2	3.5
3	0
4	1.5
5	1.5
6	1.4
7	1.5
8	1.8
9	---
10	1.0
11	0
12	3.5
13	0
14	3.5
15	0
16	3.5
IC5012	
1	1.5
2	3.4
3	0
4	1.3
5	3.5
6	3.2
7	---
8	---
IC5022	
1	---
2	3.3
3	0
4	3.1
5	3.5
IC5700	
1	3.5
2	1.2
3	0.4
4	0.9
5	0
6	0.4
7	0.6
8	1.3
9	3.5
10	1.3
11	1.0
12	0.9
13	0
14	0.9
15	0.8
16	0.4
17	0
18	0.6
19	1.3
20	1.3
21	0
22	1.2
23	1.0
24	0.9
25	1.0
26	3.5
27	0.9
28	1.1
29	0
30	3.3
31	1.8
32	3.2
33	0
34	3.5
35	0
36	0
37	1.3
38	1.5
39	1.4
40	1.3
41	1.3
42	1.4
43	0
44	3.5
45	1.3
46	1.5
47	1.3
48	1.4
49	0
50	0
51	3.5
52	3.4
53	0
54	1.3
55	1.3
56	0.7
IC5701	
1	5.1
2	0
3	1.4
4	3.5
5	5.1
IC5800	
1	0
2	1.7
3	0
4	1.7
5	3.3
6	0
7	5.1
8	5.1
9	5.1
10	3.8
11	3.8
12	0
13	0
14	5.1
15	---
16	---
IC5801	
1	0
2	0
3	0
4	0
5	3.5
6	3.5
7	3.5
8	0
9	1.0
10	0
11	0
12	0
13	3.5
14	0
15	0
16	3.5
17	0
18	0
19	3.5
20	0.2
21	0
22	1.9
23	1.9
24	0
25	0
26	3.5
27	3.0
28	3.0
29	4.5
30	4.5
31	3.5
32	3.5
33	0
34	0
35	1.9
36	0
37	3.5
38	3.5
39	0.7
40	0.7
41	0
42	3.5
43	0.7
44	0.7
45	0
46	3.5
47	0.7
48	0.7
49	0
50	3.5
51	0.7
52	0.7
53	0
54	0
55	3.5
56	0.8
57	3.5
58	0.7
59	0.7
60	0
61	3.5
62	0.7
63	0.7
64	0
65	3.5
66	0.7
67	0.7
68	0
69	3.5
70	0.7
71	0.7
72	0
73	0
74	1.9
75	0
76	3.5
77	0
78	3.3
79	1.9
80	0
81	0
82	0
83	0
84	0.1
85	0.1
86	0.1
87	0.1
88	0
89	3.5
90	0
91	0
92	1.9
93	0.1
94	1.9
95	0
96	3.5
97	3.2
98	3.5
99	3.5
100	0.1
101	0
102	3.3
103	0
104	0.4
105	1.9
106	0
107	0
108	0
109	0.1
110	0.1
111	0.1
112	0.1
113	0.1
114	1.9
115	0
116	0.1
117	0.1
118	0.1
119	0.1
120	0
121	0.1
122	3.5
123	0.1
124	0.1
125	0.1
126	0.1
127	0
128	1.9
129	0
130	0.1
131	0.1
132	0.1
133	0.1
134	3.5
135	0
136	0.1
137	---
138	0
139	1.9
140	---
141	0.1
142	0.1
143	---
144	---
IC5802	
1	0
2	0
3	0
4	0
5	4.5
6	4.5
7	4.5
8	4.5
IC5803	
1	0
2	0
3	0
4	0
5	4.5
6	4.5
7	4.5
8	4.5
IC5804	
1	4.5
2	4.5
3	4.5
4	0
5	4.5
6	4.5
7	4.5
8	9.0
IC5805	
1	3.5
2	0
3	---
4	3.5
5	1.9
IC6000	
1	0
2	0
3	0
4	0
5	3.3
6	3.3
7	3.3
8	3.3
IC6001	
1	3.3
2	0
3	1.0
4	2.0
5	1.4
6	1.6
7	0
8	1.7
9	1.7
10	---
11	3.3
12	1.5
13	1.9
14	0
15	3.2
16	3.3
17	3.3
18	3.3
19	0
20	1.8
21	3.3
22	3.5
23	3.5
24	3.5
25	0
26	3.3
27	3.3
28	3.3
29	0
30	0
31	0
32	0
33	0
34	0
35	0
36	0
37	0
38	0
39	0
40	3.3
41	0
42	0
43	0
44	0
45	0
46	0
47	3.3
48	1.8
49	---
50	0
51	3.5
52	0
53	3.2
54	3.2
55	0
56	0
57	0
58	3.3
59	3.3
60	0
61	0
62	3.3
63	0
64	0
65	3.3
66	1.7
67	0
68	1.8
69	0
70	2.5
71	1.3
72	1.3
73	0
74	---
75	---
76	1.5
77	3.3
78	0.9
79	2.6
80	2.3
81	---
82	3.3
83	0
84	2.5
85	2.5
86	3.3
87	0.2
88	3.5
89	3.3
90	2.8
91	0
92	0
93	1.8
94	1.0
95	0
96	3.3
97	3.3
98	0
99	1.7
100	1.7
101	3.3
102	3.5
103	3.3
104	3.3
105	3.3
106	3.3
107	3.3
108	3.3
109	0
110	3.3
111	3.3
112	0.6
113	3.3
114	3.3
115	3.3
116	5.2
117	5.2
118	0
119	0
120	0
121	3.3
122	3.3
123	0
124	3.3
125	3.3
126	0
127	0
128	1.6
129	1.6
130	1.6
131	0
132	1.6
133	1.6
134	1.6
135	1.6
136	1.6
137	1.6
138	1.6
139	0
140	3.3
141	1.6
142	1.6
143	1.6
144	1.6
145	---
146	0
147	0
148	0
149	0
150	1.6
151	1.4
152	1.6
153	3.3
154	0

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

PIN NO.	VOLTAGE
155	1.6
156	1.7
157	1.7
158	1.7
159	3.3
160	3.3
IC6002	
1	0
2	3.3
3	0
4	3.3
IC6003	
1	0.7
2	0.7
3	2.6
4	1.6
5	2.2
6	2.2
7	2.0
8	0.8
9	---
10	---
11	3.3
12	3.3
13	---
14	---
15	---
16	---
17	0
18	2.1
19	1.4
20	2.0
21	1.7
22	1.7
23	1.7
24	1.6
25	0.2
26	3.3
27	0
28	0.2
29	0.2
30	0.2
31	0.2
32	0.2
33	0.7
34	0.2
35	0.2
36	0.7
37	3.3
38	0.7
39	0.7
40	0.7
41	0.7
42	0.7
43	0.7

PIN NO.	VOLTAGE
44	0.7
45	0.2
46	0
47	3.3
48	0
IC6005	
1	0
2	3.0
3	0
4	3.3
IC6006	
1	3.3
2	3.3
3	0
4	---
5	3.3
IC6007	
1	3.3
2	3.3
3	0
4	3.4
5	3.4
IC6012	
1	3.3
2	---
3	0
4	3.4
5	3.3
Q1100	
E	0
C	0
B	0.7
Q1102	
E	0
C	0
B	0.7
Q1103	
E	0
C	0
B	0.7
Q1104	
1	5.1
2	5.1
3	5.1
4	0.5
5	5.1
6	5.1
7	5.1
8	5.1
Q1105	
1	9.1
2	9.1
3	9.1
4	0.9

PIN NO.	VOLTAGE
5	9.0
6	9.0
7	9.0
8	9.0
Q1106	
E	0
C	3.3
B	0.1
Q1107	
E	3.4
C	0
B	3.3
Q1108	
E	5.4
C	-1.1
B	5.3
Q1109	
E	2.7
C	0
B	2.9
Q5000	
E	0
C	3.1
B	0
Q5002	
E	2.7
C	0
B	2.0
Q5004	
E	3.1
C	0
B	2.4
Q5008	
E	3.9
C	9.0
B	4.6
Q5009	
E	2.1
C	9.0
B	2.7
Q5010	
E	2.1
C	0
B	2.7
Q5021	
E	5.3
C	0
B	4.6
Q5802	
E	0
C	0
B	0.7
Q5804	
E	0
C	0

PIN NO.	VOLTAGE
B	0.7
Q5807	
E	0
C	0
B	0
Q5818	
E	0
C	0
B	0.7
Q5819	
E	0
C	0
B	0
Q5820	
E	0
C	3.3
B	0.1
Q5821	
E	0
C	3.8
B	0
Q5823	
E	0
C	0.1
B	0.6
Q5827	
E	0
C	4.5
B	0
Q5828	
E	0
C	3.3
B	0
Q5829	
E	0
C	0
B	0.7
Q6000	
E	0
C	3.5
B	0
Q6001	
E	3.5
C	0
B	3.5
Q6002	
E	0
C	0
B	0.7
Q6003	
E	2.5
C	0
B	2.0
Q6004	

PIN NO.	VOLTAGE
E	0
C	0
B	0.7
Q6005	
E	0
C	3.2
B	0
Q6007	
E	0
C	0
B	0.7
Q6008	
E	5.1
C	0
B	2.6
Q6009	
E	0
C	3.3
B	0.2
Q6010	
E	0
C	0
B	0.7
Q6011	
E	5.1
C	5.0
B	4.4
Q6012	
E	0
C	0
B	0.7
Q6014	
E	2.7
C	5.1
B	2.3
Q6015	
E	2.0
C	5.1
B	2.7
Q6016	
E	3.3
C	3.3
B	2.7
Q6017	
E	4.6
C	5.1
B	5.2
Q6027	
E	0
C	3.3
B	0
CN3000	
1	4.5
2	4.5

PIN NO.	VOLTAGE
3	0
4	0
5	0
6	0
7	4.5
8	4.5
9	0
10	3.9
11	3.9
12	0
13	1.6
14	0
15	1.1
16	0
17	2.8
18	0
19	4.6
20	0
21	4.6
22	0
23	4.6
24	0
25	0
26	0
27	0
28	0
29	0
30	0
31	0
32	0
33	0
34	0
35	2.6
36	2.6
37	2.6
38	0
39	0
40	3.5
41	3.5
42	0
43	5.1
44	9.0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
54	0
55	0
56	0
57	0

PIN NO.	VOLTAGE
58	3.0
59	3.0
60	3.4
61	3.3
62	3.3
63	2.3
64	4.9
65	5.0
CN5700	
1	0
2	1.2
3	1.6
4	0
5	1.4
6	1.3
7	0
8	1.2
9	1.5
10	0
11	1.2
12	1.6
13	0
14	1.3
15	1.5
16	0.3
17	0
18	5.1
19	5.1
20	3.3
CN6000	
1	7.1
2	2.5
3	3.0
4	5.1
5	31.4
6	16.8
7	9.1
8	9.1
9	9.1
10	0
11	0
12	0
13	0
14	0
CN6001	
1	---
2	3.2
3	3.3
4	0
5	0
6	0
7	0
8	0
9	0

PIN NO.	VOLTAGE
CN6002	
1	5.0
2	0
3	0
CN6003	
1	0
2	0
3	0
4	0
5	0
6	0
7	---
8	31.4
9	---
10	0
11	---
12	0
13	2.9
14	0
15	3.4
16	0
17	0
18	3.4
19	3.4
20	3.2
21	---
22	3.3
23	3.3
24	0
25	0
26	0
27	3.4
28	1.2
29	---
30	0.2
31	0
32	3.4
33	3.4
34	5.2
35	0
36	3.3
37	0
38	0
39	---
40	0
41	4.6
42	0
43	4.6
44	0
45	0.9
46	0
47	1.6
48	0
49	0
50	0

PIN NO.	VOLTAGE
51	9.1
52	9.1
53	9.1
54	5.1
55	0
56	0
57	5.1
58	3.9
59	0
60	3.9
61	0
62	0
63	0
64	0
65	0
66	0
67	0
68	0
69	0
70	0
71	0
72	0
73	0
74	0
75	0
76	0
77	0
78	0
79	0
80	3.3
81	0
82	0
83	0
84	0
85	1.7
86	0
87	3.3
88	1.2
89	1.1
90	1.3
91	0
92	3.4
93	0
94	0
95	0
96	0
97	0.2
98	0.3
99	1.4
100	1.5
101	0
102	1.5
103	1.4
104	1.1
105	1.8

PIN NO.	VOLTAGE
106	0.5
107	0.6
108	0
109	1.5
110	0
CN6008	
1	16.8
2	9.0
3	5.1
4	3.5
5	0
6	0
7	0
8	0
TP1100	5.1
TP1101	9.1
TP1102	5.1
TP1103	3.4
TP1104	2.6
TP1105	3.5
TP1106	0
TP1107	0
TP1108	3.5
TP1109	3.5
TP1110	5.1
TP1111	2.6
TP1112	3.5
TP1113	9.1
TP1114	9.0
TP1115	5.1
TP1116	9.0
TP1117	5.1
TP1118	3.4
TP3002	9.0
TP3003	0
TP3004	3.4
TP3005	3.3
TP3006	3.3
TP3007	0
TP3008	3.0
TP3009	3.0
TP3010	2.3
TP3011	4.9
TP3012	5.0
TP3013	0
TP3014	4.5
TP3015	1.6
TP3016	4.6
TP3017	4.6
TP3018	4.6
TP3019	1.1
TP3020	4.5
TP3021	4.5
TP3022	2.8

PIN NO.	VOLTAGE
TP3023	3.9
TP3024	3.9
TP3025	0
TP3026	4.5
TP3027	3.5
TP3028	5.1
TP5000	3.5
TP5001	2.6
TP5002	1.3
TP5003	0
TP5004	0
TP5005	0
TP5006	0
TP5007	0
TP5008	3.5
TP5009	3.5
TP5010	0
TP5700	5.1
TP5701	5.1
TP5702	0.3
TP5703	3.3
TP5800	0
TP5801	4.5
TP5802	4.5
TP5803	0
TP5804	4.5
TP5805	4.5
TP5806	4.5
TP5807	4.5
TP5808	5.4
TP5809	3.7
TP5810	3.3
TP5811	3.3
TP5812	0
TP5813	0
TP5814	4.5
TP5815	4.5
TP5816	0
TP5817	0
TP5818	0
TP5819	0
TP5820	0
TP5821	0
TP5822	4.5
TP5823	4.5
TP5824	0
TP5825	0
TP6000	0
TP6001	0
TP6002	3.3
TP6003	3.3
TP6004	0
TP6005	3.3
TP6006	3.3
TP6007	3.3

PIN NO.	VOLTAGE
TP6008	0
TP6009	3.0
TP6010	3.3
TP6011	4.9
TP6012	4.9
TP6013	3.5
TP6014	3.4
TP6015	3.4
TP6016	3.3
TP6022	0
TP6023	3.3
TP6024	3.3
TP6026	0
TP6027	3.3
TP6028	3.2
TP6029	3.3
TP6030	0
TP6031	0
TP6032	0
TP6033	0
TP6034	0
TP6035	3.3
TP6036	3.3

VOLTAGE CHART

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

BASE P.C.B.

PIN NO.	VOLTAGE
IC3101	
1	5.5
2	8.7
3	5.5
4	0
5	5.5
6	8.7
7	5.5
8	9.0
9	5.5
10	0
11	5.5
12	8.8
13	5.5
14	0
15	5.5
16	3.8
17	5.5
18	0
19	5.5
20	0
21	5.5
22	0
23	5.5
24	0
25	5.5
26	0
27	5.5
28	0
29	5.5
30	0
31	5.5
32	0
33	5.5
34	0
35	5.5
36	0
37	5.5
38	0.1
39	5.5
40	0.1
41	5.5
42	8.7
43	5.5
44	0
45	5.0
46	5.0
47	9.0
48	3.8
49	0.1
50	3.9
51	3.9
52	3.9
53	9.0
54	3.9

PIN NO.	VOLTAGE
55	3.9
56	3.9
57	9.0
58	3.9
59	3.9
60	3.9
61	3.6
62	0
63	5.5
64	0
65	5.6
66	1.9
67	5.5
68	0
69	5.5
70	0.1
71	5.5
72	0
73	5.5
74	0
75	5.5
76	0.1
77	5.5
78	0
79	5.5
80	0
IC4002	
1	4.5
2	4.5
3	4.5
4	4.5
5	9.0
6	9.0
7	4.5
8	4.5
9	4.5
10	4.5
11	---
12	4.5
13	4.5
14	4.5
15	4.5
16	4.5
17	4.5
18	4.5
19	4.5
20	0
21	---
22	4.1
23	4.5
24	4.5
25	4.5
26	4.5
27	0
28	0

PIN NO.	VOLTAGE
29	4.5
30	4.5
31	0
32	4.9
33	4.9
34	4.6
35	4.6
36	4.6
37	4.5
38	4.5
39	4.5
40	4.5
41	4.5
42	4.5
43	4.5
44	4.5
IC4501	
1	1.7
2	1.7
3	3.4
4	1.7
5	0
6	3.4
7	3.4
8	0
9	1.4
10	1.7
11	2.1
12	1.7
13	3.4
14	3.4
15	0
16	0
IC4503	
1	1.7
2	1.7
3	0
4	0
5	---
6	0
7	0
8	3.4
IC4504	
1	---
2	---
3	0.8
4	19.4
5	---
6	0
7	0
8	19.4
9	0.8
10	0.8
11	19.4
12	0

PIN NO.	VOLTAGE
13	0
14	---
15	19.4
16	0.8
17	0
18	0
19	4.9
20	3.4
21	0
22	3.4
23	3.0
24	3.0
25	0
26	1.0
27	2.1
28	0
29	3.4
30	1.4
31	1.7
32	1.7
33	0
34	3.4
35	14.3
36	19.4
Q3101	
E	4.6
C	0
B	3.9
Q3102	
E	4.6
C	0
B	3.9
Q3103	
E	4.6
C	0
B	4.0
Q3107	
E	0
C	0
B	1.9
Q3501	
E	0
C	-0.4
B	0.3
Q3502	
E	0
C	0
B	-0.4
Q3503	
E	0
C	0
B	-0.4
Q4002	
E	3.9

PIN NO.	VOLTAGE
C	9.0
B	4.5
Q4003	
E	3.9
C	9.0
B	4.5
CN3101	
1	5.1
2	0
3	2.3
4	0
5	0
6	3.3
7	---
8	3.3
CN3102	
1	0
2	---
3	8.7
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	0
13	0
CN3103	
1	4.5
2	4.5
3	0
4	0
5	0
6	0
7	4.5
8	4.5
9	0
10	3.9
11	3.9
12	0
13	1.6
14	0
15	1.1
16	0
17	2.8
18	0
19	4.6
20	0
21	4.6
22	0
23	4.6
24	0

PIN NO.	VOLTAGE
25	0
26	0
27	0
28	0
29	0
30	0
31	0
32	0
33	0
34	0
35	2.6
36	2.6
37	2.6
38	0
39	0
40	3.5
41	3.5
42	0
43	5.1
44	9.0
45	0
46	0
47	0
48	0
49	0
50	0
51	0
52	0
53	0
54	0
55	0
56	0
57	0
58	3.0
59	3.0
60	3.4
61	3.3
62	3.3
63	2.3
64	4.9
65	5.0
CN4501	
1	0
2	19.4
CN4502	
1	---
2	1.3
3	---
4	1.3
5	1.3
6	---
7	1.3
TP1204	2.6
TP1205	3.5

PIN NO.	VOLTAGE
TP3101	2.8
TP3102	3.9
TP3103	3.9
TP3104	1.1
TP3105	1.6
TP3106	4.5
TP3107	4.5
TP3109	4.6
TP3110	4.6
TP3111	4.6
TP3112	0
TP3113	0
TP3114	0
TP3115	4.5
TP3116	4.5
TP3117	0
TP3118	0
TP4001	4.5
TP4002	4.5

VOLTAGE CHART
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

POWER P.C.B.

PIN NO.	VOLTAGE
IC1002	
1	12.3
2	0
3	0.9
IC1003	
1	12.3
2	0
3	0.9
IC1401	
1	6.8
2	5.8
3	-3.2
4	-1.0
IC1404	
1	1.9
2	0.7
3	0.4
4	0.5
IC1406	
1	12.7
2	12.3
3	0
4	3.3
IC1407	
1	12.7
2	12.3
3	0
4	3.3
IC1408	
1	11.7
2	0
3	16.7
IC1409	
1	-11.7
2	0
3	-19.3
IC1831	
1	2.1
2	6.0
3	0.9
4	0
5	1.8
6	0
7	9.6
8	16.3
IC1901	
1	1.2
2	0
3	0.2
4	0.1
IC1931	
1	-1.1
2	-5.4
3	-3.0
4	9.1

PIN NO.	VOLTAGE
5	210.3
6	---
7	-6.1
8	-6.1
IC1932	
1	2.5
2	0
3	5.8
IC1933	
1	---
2	3.3
3	0
4	3.3
5	5.1
IC1934	
1	---
2	3.3
3	0
4	3.3
5	5.1
IC1935	
1	3.3
2	3.3
3	0
4	3.5
5	5.1
IC1937	
1	5.1
2	13.3
3	0
Q1303	
S	202.3
D	396.2
G	205.9
Q1304	
S	0
D	202.3
G	4.6
Q1305	
1	0.6
2	5.3
3	5.3
4	0
5	0.6
6	-7.5
Q1401	
S	60.3
D	194.0
G	63.4
Q1402	
E	63.5
C	60.7
B	0.6
Q1503	

PIN NO.	VOLTAGE
S	64.9
D	64.8
G	74.0
Q1505	
S	0
D	6.4
G	0
Q1506	
E	65.1
C	74.3
B	65.0
Q1507	
E	0
C	5.6
B	0
Q1508	
S	205.8
D	202.3
G	870.2
Q1509	
S	4.5
D	0
G	-1.5
Q1510	
S	0
D	0
G	5.6
Q1601	
S	0
D	2.5
G	0.6
Q1602	
S	0
D	0
G	3.4
Q1801	
S	0
D	113.2
G	8.5
Q1802	
E	0
C	0.8
B	0
Q1803	
E	0
C	0
B	0.8
Q1804	
E	8.5
C	0
B	8.8
Q1903	
E	0
C	0
B	0.7

PIN NO.	VOLTAGE
Q1904	
S	17.6
D	17.4
G	10.5
Q1906	
S	5.1
D	5.1
G	0.5
P2	
1	9.1
2	5.4
3	0
4	13.6
5	0
6	13.9
7	6.7
8	6.7
9	5.1
10	1.3
11	5.6
12	5.1
13	0.9
CN1401	
1	0.5
2	3.5
3	8.0
4	7.7
5	0.5
6	0.5
7	0.5
8	3.0
9	11.3
10	-11.4
11	0.5
12	0.9
13	3.6
14	0.5
15	11.5
16	4.7
17	0.3
18	5.5
19	5.5
20	5.6
21	5.6
22	18.6
23	0.5
24	0.8
25	0.9
26	0.9
27	---
28	62.2
29	62.2
30	---

PIN NO.	VOLTAGE
31	31.6
32	31.6
33	---
34	31.5
35	31.5
36	---
37	0
38	0
39	---
40	80.0
41	70.2
42	66.5
CN1514	
1	7.1
2	2.5
3	3.0
4	5.1
5	31.4
6	16.8
7	9.1
8	9.1
9	9.1
10	0
11	0
12	0
13	0
14	0
CN1516	
1	0
2	19.6
CN1520	
1	3.0
2	3.0
CN1522	
1	5.0
2	0
3	0
TP1001	0
TP1002	0
TP1003	0
TP1004	0
TP1301	0
TP1302	0
TP1303	9.1
TP1304	9.1
TP1305	0
TP1306	0
TP1307	31.5
TP1308	31.5
TP1309	19.6
TP1310	19.6
TP1311	199.3
TP1312	199.3
TP1401	65.1

PIN NO.	VOLTAGE
TP1402	65.1
TP1501	3.0
TP1502	3.0
TP1503	5.0
TP1504	0
TP1801	259.8
TP1802	0
TP1803	0
TP1804	0
TP1805	0
TP1806	396.2
TP1807	396.2
TP1901	7.1
TP1902	7.1
TP1903	0
TP1904	0
TP1905	13.9
TP1906	13.9

LCD DRIVE P.C.B.

PIN NO.	VOLTAGE
IC2001	
1	0
2	0
3	1.3
4	0.4
5	0.4
6	1.7
7	3.4
8	3.4
9	3.3
10	3.4
11	3.3
12	---
13	0
14	4.9
15	6.4
16	6.0
17	---
18	15.5
19	0
20	0
21	0
22	0
23	---
24	---
25	---
26	---
27	---
28	15.4
29	0
30	---
31	0
32	0
33	---
34	---
35	0
36	0
37	0
38	0
39	0
40	0
41	---
42	---
43	---
44	---
45	---
46	---
47	---
48	0
49	6.9
50	15.5
51	6.9
52	0
53	6.9
54	15.5

PIN NO.	VOLTAGE
55	6.9
56	0
57	6.9
58	15.5
59	6.8
60	0
61	4.5
62	7.1
63	7.1
64	7.1
65	9.6
66	15.5
67	0
68	---
69	---
70	1.4
71	1.3
72	1.1
73	1.1
74	0.5
75	1.3
76	0.7
77	0.8
78	1.1
79	1.4
80	3.1
IC2002	
1	0
2	0
3	1.3
4	0.4
5	0.4
6	1.7
7	3.4
8	3.4
9	3.4
10	3.4
11	3.3
12	---
13	0
14	4.9
15	6.4
16	6.0
17	---
18	15.5
19	0
20	0
21	0
22	0
23	---
24	---
25	---
26	---
27	---
28	15.5

PIN NO.	VOLTAGE
29	0
30	---
31	0
32	0
33	---
34	---
35	0
36	0
37	0
38	0
39	0
40	0
41	---
42	---
43	---
44	---
45	---
46	---
47	---
48	0
49	6.0
50	15.5
51	6.0
52	0
53	6.0
54	15.5
55	6.0
56	0
57	6.0
58	15.5
59	6.0
60	0
61	4.5
62	7.1
63	7.1
64	7.1
65	9.6
66	15.5
67	0
68	---
69	---
70	1.4
71	1.3
72	1.1
73	1.1
74	0.5
75	1.3
76	0.7
77	0.8
78	1.1
79	1.4
80	3.1
IC2003	
1	0
2	0

PIN NO.	VOLTAGE
3	1.3
4	0.4
5	0.4
6	1.7
7	3.4
8	3.4
9	3.4
10	3.4
11	3.4
12	---
13	0
14	4.9
15	6.4
16	6.0
17	---
18	15.5
19	0
20	0
21	0
22	0
23	---
24	---
25	---
26	---
27	---
28	15.4
29	0
30	---
31	0
32	0
33	---
34	---
35	0
36	0
37	0
38	0
39	0
40	0
41	---
42	---
43	---
44	---
45	---
46	---
47	---
48	0
49	6.9
50	15.5
51	6.9
52	0
53	6.9
54	15.5
55	6.9
56	0
57	6.9

PIN NO.	VOLTAGE
58	15.5
59	6.8
60	0
61	4.5
62	7.1
63	7.1
64	7.1
65	9.6
66	15.5
67	0
68	---
69	---
70	1.4
71	1.3
72	1.1
73	1.1
74	0.5
75	1.3
76	0.7
77	0.8
78	1.1
79	1.4
80	3.1
IC2004	
1	0
2	0
3	1.3
4	0.4
5	0.4
6	1.7
7	3.4
8	3.4
9	3.4
10	3.4
11	3.4
12	---
13	0
14	4.9
15	6.4
16	---
17	---
18	15.5
19	0
20	0
21	0
22	0
23	---
24	---
25	---
26	---
27	---
28	15.5
29	0
30	---
31	0

PIN NO.	VOLTAGE
32	0
33	---
34	---
35	0
36	0
37	0
38	0
39	0
40	0
41	---
42	---
43	---
44	---
45	---
46	---
47	---
48	0
49	6.9
50	15.5
51	6.9
52	0
53	6.9
54	15.5
55	6.9
56	0
57	6.9
58	15.5
59	6.9
60	0
61	4.6
62	7.1
63	7.1
64	7.1
65	9.6
66	15.5
67	0
68	---
69	---
70	1.4
71	1.3
72	1.1
73	1.1
74	0.5
75	1.3
76	0.7
77	0.8
78	1.1
79	1.4
80	3.1
IC2005	
1	0
2	0
3	1.3
4	0.4
5	0.4

VOLTAGE CHART

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

PIN NO.	VOLTAGE
6	1.7
7	3.4
8	3.4
9	3.4
10	3.4
11	3.4
12	---
13	0
14	4.9
15	6.4
16	---
17	---
18	15.5
19	0
20	0
21	0
22	0
23	---
24	---
25	---
26	---
27	---
28	15.5
29	0
30	---
31	0
32	0
33	---
34	---
35	0
36	0
37	0
38	0
39	0
40	0
41	---
42	---
43	---
44	---
45	---
46	---
47	---
48	0
49	6.9
50	15.5
51	6.9
52	0
53	6.9
54	15.5
55	6.9
56	0
57	6.9
58	15.5
59	6.9
60	0

PIN NO.	VOLTAGE
61	4.6
62	7.1
63	7.1
64	7.1
65	9.6
66	15.5
67	0
68	---
69	---
70	1.4
71	1.3
72	1.1
73	1.1
74	0.5
75	1.3
76	0.7
77	0.8
78	1.1
79	1.4
80	3.1
IC2006	
1	0
2	0
3	1.3
4	0.4
5	0.4
6	1.7
7	3.4
8	3.4
9	3.4
10	3.4
11	3.4
12	---
13	0
14	4.9
15	6.4
16	---
17	---
18	15.5
19	0
20	0
21	0
22	0
23	---
24	---
25	---
26	---
27	---
28	15.5
29	0
30	---
31	0
32	0
33	---
34	---

PIN NO.	VOLTAGE
35	0
36	0
37	0
38	0
39	0
40	0
41	---
42	---
43	---
44	---
45	---
46	---
47	---
48	0
49	6.9
50	15.5
51	6.9
52	0
53	6.9
54	15.5
55	6.9
56	0
57	6.9
58	15.5
59	6.9
60	0
61	4.6
62	7.1
63	7.1
64	7.1
65	9.6
66	15.5
67	0
68	---
69	---
70	1.4
71	1.3
72	1.1
73	1.1
74	0.5
75	1.3
76	0.7
77	0.8
78	1.1
79	1.4
80	3.1
IC2007	
1	3.0
2	3.3
3	3.2
4	0
5	3.3
6	1.7
7	0
8	2.2

PIN NO.	VOLTAGE
9	0
10	1.3
11	0
12	3.3
13	15.6
14	0
15	0.2
16	7.8
17	7.8
18	7.2
19	7.2
20	0.9
21	0
22	15.6
23	8.4
24	0
25	1.7
26	1.6
27	1.6
28	1.7
29	1.7
30	0.9
31	7.1
32	7.7
33	0.5
34	15.6
35	15.6
36	0
37	3.3
38	0
39	3.3
40	3.2
41	1.9
42	1.9
43	1.7
44	3.4
45	0
46	0
47	0
48	3.4
IC2008	
1	3.0
2	3.3
3	3.3
4	0
5	3.3
6	1.7
7	0
8	2.2
9	0
10	1.3
11	0
12	3.3
13	15.6
14	0

PIN NO.	VOLTAGE
15	0.2
16	7.8
17	7.8
18	7.2
19	7.2
20	0.9
21	0
22	15.6
23	8.4
24	0
25	1.7
26	1.7
27	1.7
28	1.7
29	1.6
30	0.9
31	7.1
32	7.7
33	0.6
34	15.6
35	15.6
36	0
37	3.3
38	0
39	3.3
40	3.2
41	1.9
42	1.9
43	1.7
44	3.4
45	0
46	3.3
47	0
48	3.4
IC2009	
1	3.0
2	3.3
3	3.2
4	0
5	3.3
6	1.7
7	0
8	2.2
9	0
10	1.3
11	0
12	3.3
13	15.6
14	0
15	0.2
16	7.8
17	7.8
18	7.2
19	7.2
20	0.9

PIN NO.	VOLTAGE
21	0
22	15.6
23	8.4
24	0
25	1.7
26	1.6
27	1.6
28	1.7
29	1.7
30	0.9
31	7.1
32	7.7
33	0.5
34	15.6
35	15.6
36	0
37	3.3
38	0
39	3.3
40	3.3
41	1.9
42	1.9
43	1.7
44	3.4
45	0
46	0
47	3.3
48	3.4
IC2301	
1	0
2	2.3
3	0
4	3.2
5	3.4
6	3.4
7	3.4
8	1.6
9	1.7
10	0
11	0
12	---
13	0
14	3.4
15	3.4
16	3.4
17	0
18	3.4
19	3.4
20	3.4
21	0
22	0
23	1.7
24	0
25	1.8
26	0

PIN NO.	VOLTAGE
27	0
28	3.4
29	0.2
30	0
31	0
32	0
33	3.4
34	3.4
35	0
36	0
37	0
38	3.4
39	3.4
40	0
41	3.2
42	3.4
43	0
44	0
45	3.4
46	3.4
47	3.4
48	0
49	0
50	0
51	3.3
52	1.6
53	3.4
54	0
55	0
56	3.4
57	3.4
58	3.4
59	2.5
60	3.0
61	0
62	3.4
63	1.5
64	2.0
IC2302	
1	3.4
2	3.4
3	0
4	0
5	3.3
6	0
7	0
8	0
IC2303	
1	3.5
2	3.4
3	0
IC2304	
1	3.3
2	0
3	0

PIN NO.	VOLTAGE
4	3.3
5	0
6	3.4
7	0
8	3.3
9	0
10	3.3
11	0
12	0
13	3.3
14	3.4
IC2305	
1	3.4
2	3.3
3	0
4	3.4
5	3.4
IC2501	
1	3.4
2	0
3	1.3
IC2502	
1	5.1
2	0
3	1.4
4	3.4
5	5.1
IC2504	
1	0.6
2	0.9
3	1.6
4	0
5	0.7
6	3.3
7	1.6
8	0
9	1.3
10	1.2
11	1.3
12	1.2
13	3.3
14	0
15	1.3
16	1.2
17	1.2
18	1.3
19	1.3
20	1.2
21	0
22	0
23	3.3
24	0
25	3.3
26	1.7
27	3.3

PIN NO.	VOLTAGE
28	0
29	3.1
30	1.0
31	3.3
32	0.8
33	0.6
34	0.4
35	0.5
36	0
37	0.6
38	0.5
39	0.6
40	3.3
41	0.9
42	0.8
43	0.7
44	0
45	0.5
46	0.7
47	0.7
48	0.6
49	3.3
50	0.7
51	1.0
52	0
53	0.9
54	1.0
55	0.3
56	3.3
IC2701	
1	3.4
2	16.1
3	0
4	15.6
5	1.1
IC2702	
1	3.4
2	9.0
3	0
4	7.1
5	1.4
IC2703	
1	3.4
2	9.0
3	0
4	8.1
5	1.4
IC2704	
1	3.4
2	9.0
3	0
4	7.1
5	1.4
IC2705	
1	2.1

PIN NO.	VOLTAGE
2	0
3	0
4	0
5	1.7
6	1.7
7	1.7
8	7.1
Q2001	
E	0
C	15.6
B	4.8
Q2002	
E	5.0
C	0
B	0
Q2302	
S	3.3
D	4.9
G	3.4
Q2303	
S	3.3
D	5.0
G	3.4
CN2001	
1	6.0
2	0.2
3	7.0
4	6.9
5	6.9
6	6.9
7	6.9
8	6.9
9	6.9
10	6.9
11	6.9
12	6.9
13	6.9
14	6.9
15	6.9
16	15.6
17	0.5
18	7.6
19	7.0
20	15.6
21	1.6
22	1.6
23	1.6
24	1.6
25	0.9
26	0
27	0
28	0
29	7.2

PIN NO.	VOLTAGE
30	7.2
31	7.8
32	10.5
33	0.2
34	0.1
35	15.6
36	6.0
CN2002	
1	6.0
2	0.2
3	6.8
4	6.0
5	6.9
6	6.0
7	6.9
8	6.0
9	6.9
10	6.0
11	6.9
12	6.0
13	6.9
14	6.0
15	6.9
16	15.6
17	0.5
18	7.7
19	7.1
20	0.1
21	1.7
22	1.4
23	1.6
24	1.7
25	0.9
26	0
27	0
28	0
29	7.2
30	7.2
31	7.8
32	7.8
33	0.2
34	0.1
35	15.6
36	6.0
CN2003	
1	6.0
2	0.2
3	7.1
4	6.9
5	6.9
6	6.9
7	6.9
8	6.9
9	6.9
10	6.9

PIN NO.	VOLTAGE
11	6.9
12	6.9
13	6.9
14	6.9
15	6.9
16	15.6
17	0.5
18	7.7
19	7.1
20	15.5
21	1.7
22	1.6
23	1.6
24	1.7
25	0.9
26	0
27	0
28	0
29	7.2
30	7.2
31	7.8
32	7.8
33	0.2
34	0.1
35	15.6
36	6.0
CN2301	
1	0
2	2.0
CN2302	
1	0
2	2.3
CN2501	
1	0.3
2	0.3
CN2502	
1	0
2	01.2
3	1.6
4	0
5	1.4
6	1.3
7	0
8	1.2
9	1.5
10	0
11	1.2
12	1.6
13	0
14	1.3
15	1.5
16	0.3
17	0
18	5.1
19	5.1

VOLTAGE CHART

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

PIN NO.	VOLTAGE
20	3.3
CN2701	
1	7.1
2	0.2
3	0.2
CN2702	
1	8.1
2	0
3	0.1
CN2703	
1	7.1
2	0
3	0.1
CN2704	
1	16.5
2	9.0
3	5.1
4	3.4
5	0
6	0
7	0
8	0
CN2705	
1	9.0
2	0
3	0
4	5.0
5	5.0
6	0
7	5.1
TP2001	6.0
TP2002	6.0
TP2003	6.0
TP2004	6.9
TP2005	6.9
TP2006	6.9
TP2306	3.3
TP2321	3.3
TP2322	0
TP2326	3.3
TP2327	3.2
TP2328	3.4
TP2501	3.3
TP2502	3.4
TP2503	0
TP2504	0
TP2505	1.8
TP2506	3.2
TP2507	3.4
TP2508	3.4
TP2729	0
TP2730	15.6
TP2732	3.4
TP2733	3.4

PIN NO.	VOLTAGE
TP2734	7.1
TP2735	0.2
TP2736	3.4
TP2737	8.1
TP2738	3.4
TP2739	7.1
TP2740	0
TP2741	0
TP2742	7.1
TP2743	8.1
TP2744	7.1

IRIS P.C.B.

PIN NO.	VOLTAGE
IC9500	
1	2.5
2	2.8
3	0
4	0
5	8.9
6	0
7	8.7
8	11.8
9	9.0
10	3.8
11	3.9
12	0
13	0
14	0
15	5.1
16	9.0
17	12.9
18	0
19	0
20	1.2
21	2.5
22	2.5
23	4.9
24	9.0
IC9501	
1	2.8
2	2.9
3	2.9
4	9.0
5	2.8
6	2.8
7	5.4
8	2.8
9	2.8
10	2.7
11	0
12	2.0
13	2.1
14	1.4
IC9502	
1	5.1
2	1.5
3	0.1
4	1.2
5	0
6	0
7	0
8	0
9	1.1
10	0
11	0
12	2.6
13	0
14	4.9

PIN NO.	VOLTAGE
15	5.0
16	5.1
17	0
18	0
19	0
20	5.1
21	5.1
22	0
23	0.1
24	0
25	0
26	0
27	1.1
28	1.0
IC9504	
1	8.9
2	0
3	1.4
4	5.1
5	8.9
Q9500	
E	0
C	8.8
B	0
Q9501	
E	0
C	0
B	0.7
Q9502	
E	0
C	8.9
B	0
Q9503	
E	8.9
C	0
B	0
Q9504	
E	0
C	5.1
B	0
CN9500	
1	2.7
2	6.4
3	0
4	0
5	0
6	0
7	0
8	0
9	0
CN9502	
1	9.0
2	0

PIN NO.	VOLTAGE
3	0
4	5.0
5	5.0
6	0
7	---
TP9500	2.8
TP9501	2.8

POWER SWITCH P.C.B.

PIN NO.	VOLTAGE
Q6802	
E	3.4
C	3.2
B	2.6
Q6803	
E	3.4
C	-1.5
B	3.4
Q6804	
E	0
C	3.3
B	0
Q6805	
E	0
C	3.3
B	0
CN6801	
1	---
2	3.3
3	0.3
4	3.4
5	0
6	0
7	0.1
8	0

VOLTAGE CHART
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

14 Printed Circuit Board

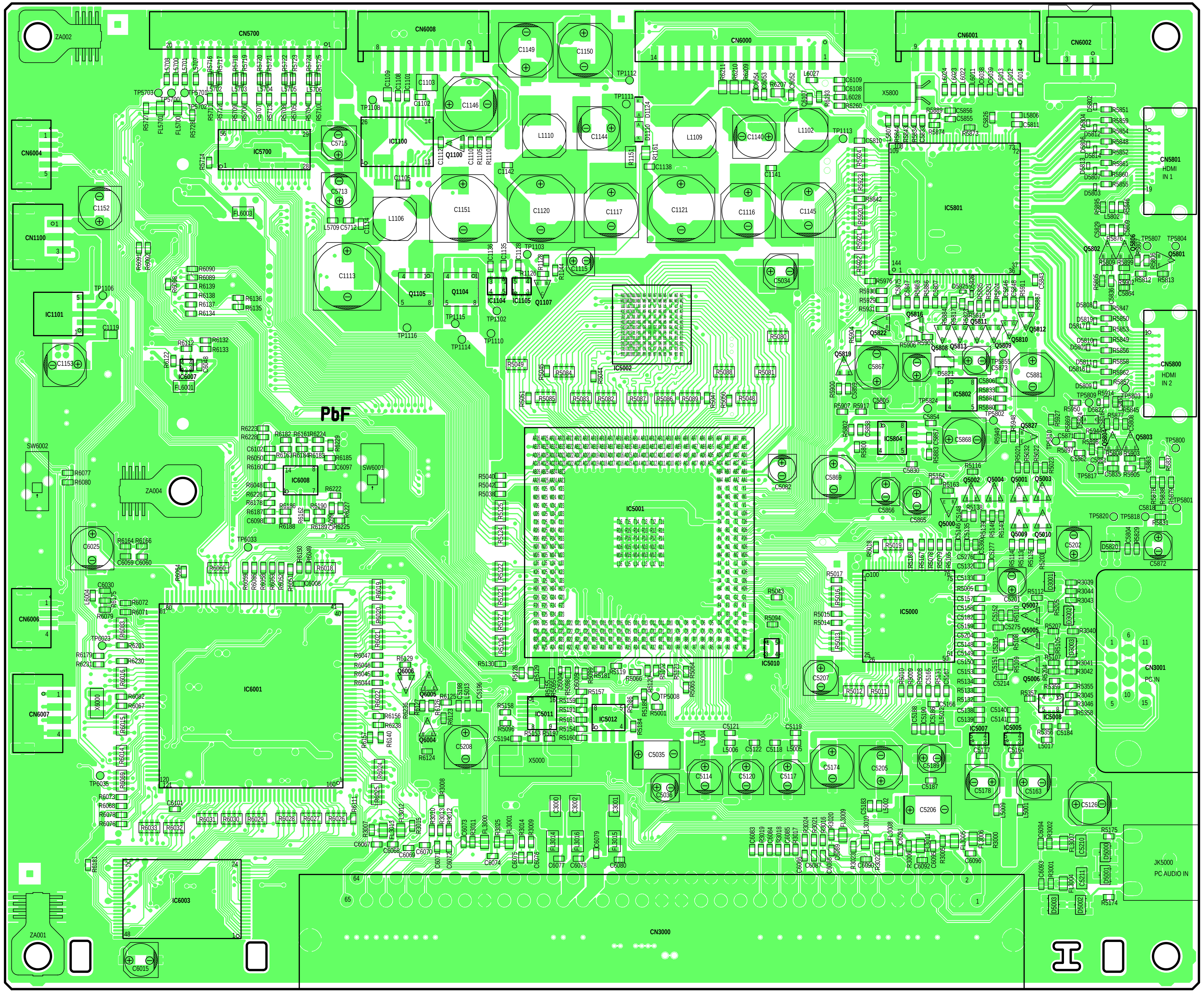
14.1. MAIN P.C.B.

MAIN P.C.B. LSXA0774 (A, B, C) / LSXA0790 (D, E, F, G, H)
(COMPONENT SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE: MULTILAYER P.C.B.
THIS P.C.B. IS Multi-Layer P.C.B. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

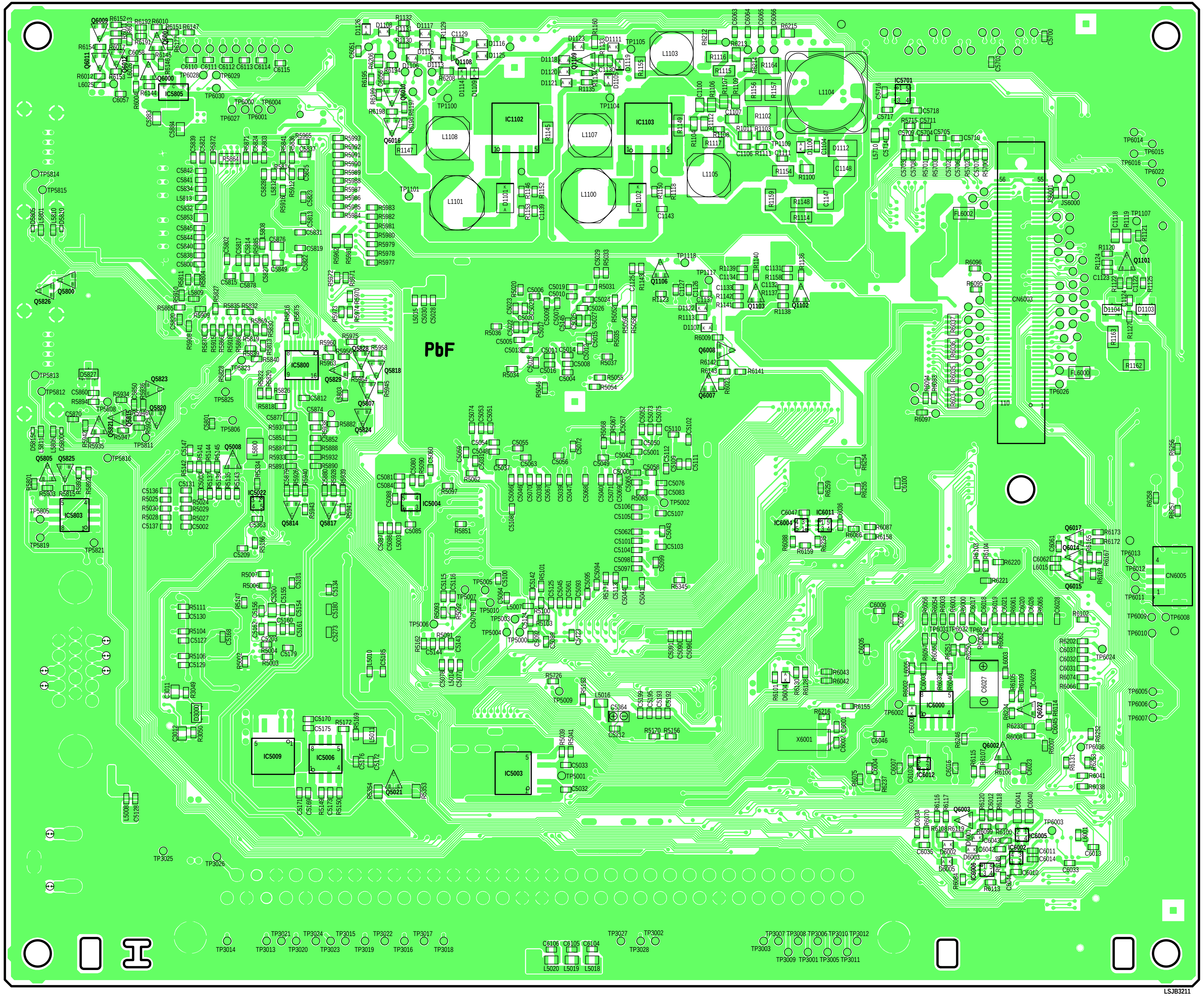

CN5700
CN6008
CN6000
CN6001
CN6002
ZA002
CN6004
CN1100
IC1101
IC5700
IC1100
Q1100
L1110
L1109
L1102
C1144
C1140
C1146
C1149
C1150
C1151
C1120
C1117
C1121
C1116
C1145
C1113
L1106
C1152
C1153
FL6003
X5800
IC5801
CN5801
HDMI
IN 1
CN5800
HDMI
IN 2
Q1105
Q1104
IC1104
IC1105
Q1107
IC5002
IC6007
PbF
SW6002
ZA004
IC6008
SW6001
IC5001
IC5804
IC5802
IC5000
IC5010
CN6006
CN6007
IC6001
IC5011
IC5012
X5000
CN3001
PC IN
IC5008
IC5007
IC5005
JK5000
PC AUDIO IN
IC6003
ZA001
CN3000
LSJB3211

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

MAIN P.C.B. LSXA0774/LSXA0790
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

MAIN P.C.B. LSXA0774 (A, B, C) / LSXA0790 (D, E, F, G, H)
(FOIL SIDE)



NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: MULTILAYER P.C.B.
THIS P.C.B. IS Multi-Layer P.C.B. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

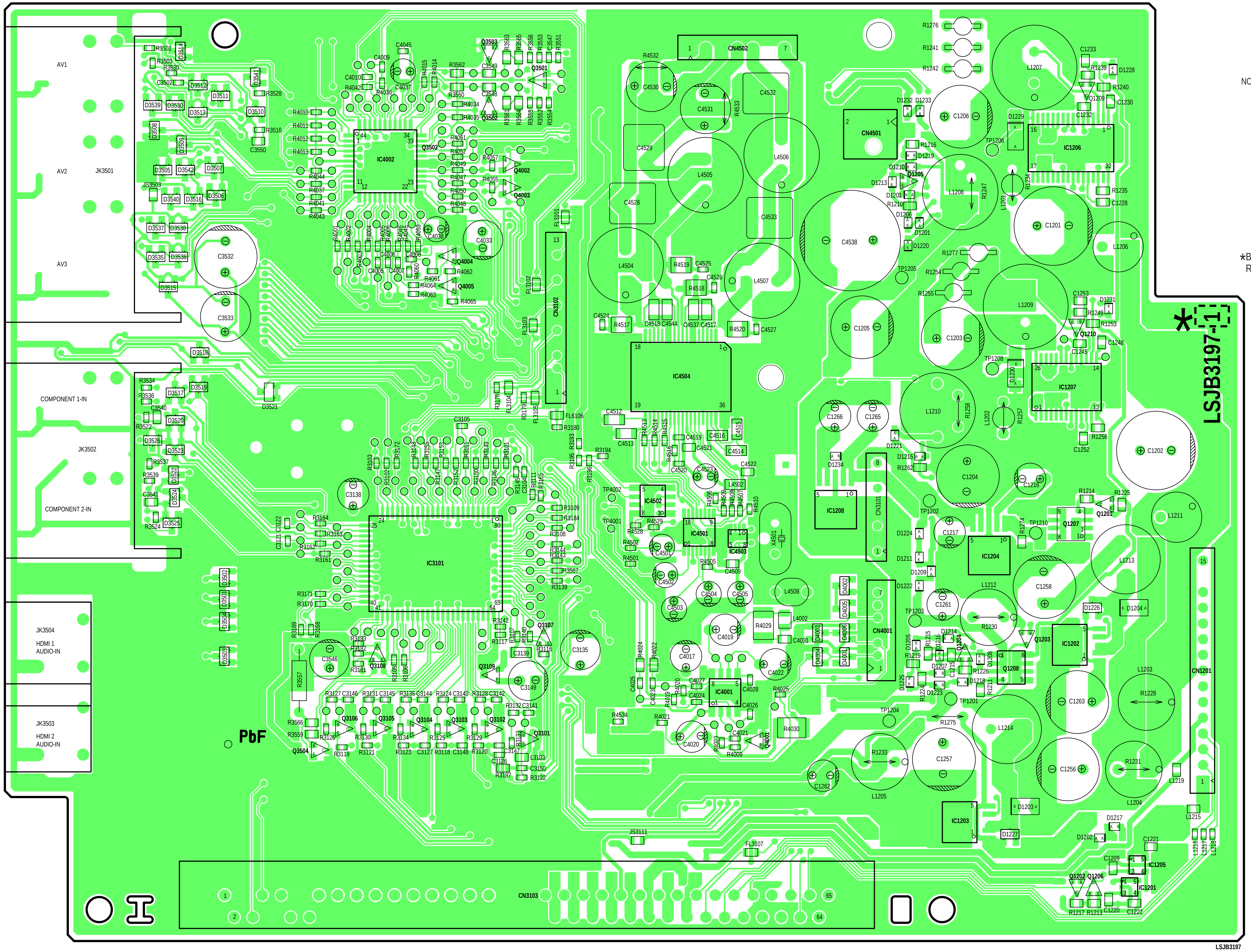
MAIN P.C.B. LSXA0774/LSXA0790

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

14.2. BASE P.C.B.

BASE P.C.B. LSEP3197A (A, B, C) / LSEP3197C (D, E, F, G, H) (SUFFIX (VERSION) NUMBER①)
(COMPONENT SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.


AV1
AV2
JK3501
AV3
COMPONENT 1-IN
JK3502
COMPONENT 2-IN
JK3504
HDMI 1 AUDIO-IN
JK3503
HDMI 2 AUDIO-IN
PbF
IC4002
IC3101
IC4504
IC4502
IC4501
IC4503
IC4001
CN4502
CN4501
CN4001
CN3101
CN3102
CN3103
CN1201
IC1206
IC1207
IC1208
IC1204
IC1202
IC1203
IC1205
IC1201
LSJB3197-1
LSJB3197

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

*BASE P.C.B. SUFFIX (VERSION) NUMBER ①
REFER TO BASE P.C.B. REPLACEMENT NOTE.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

(DUAL PATTERNS)

BASE P.C.B. LSEP3197A/LSEP3197C

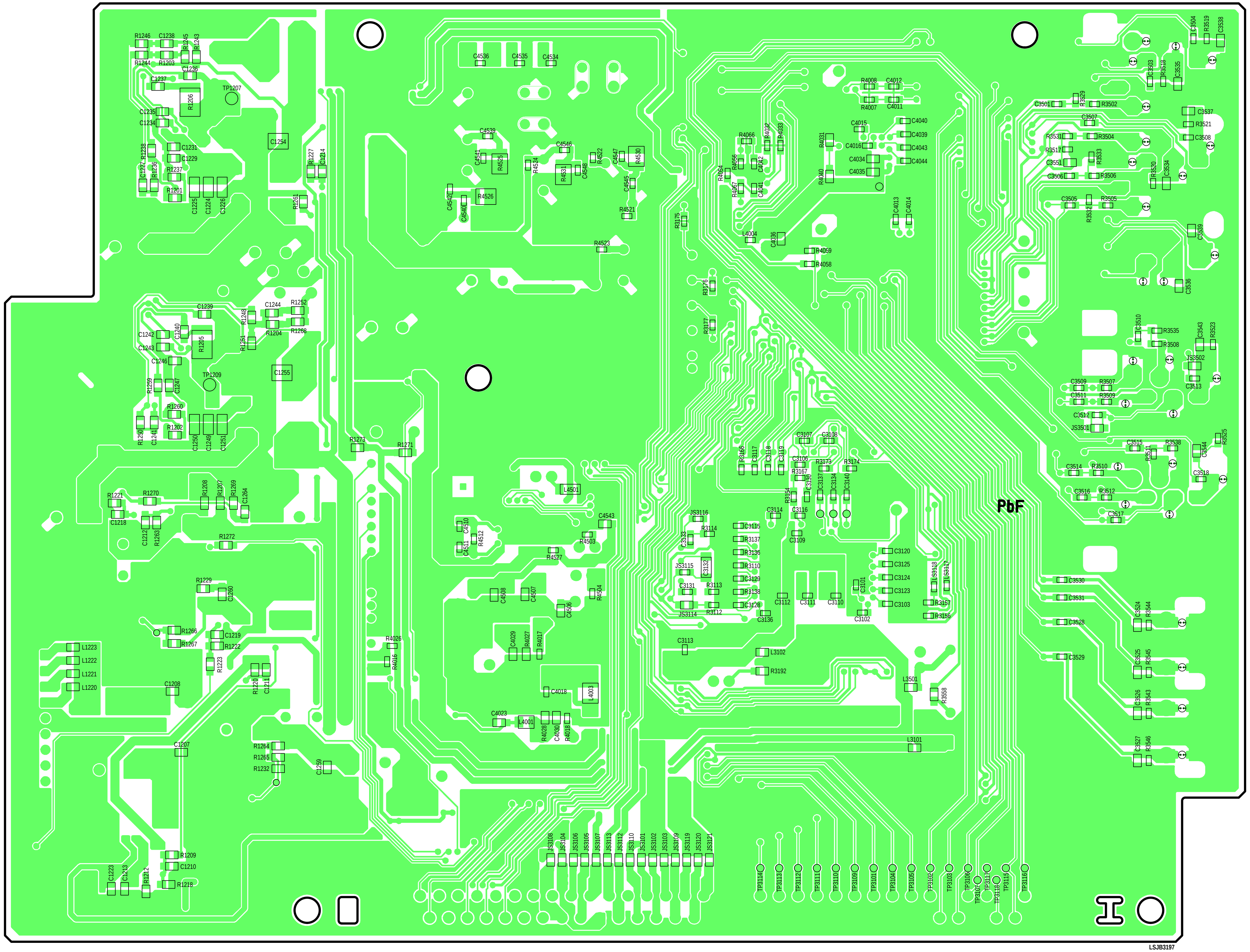
**PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K**

BASE P.C.B. LSEP3197A (A, B, C) / LSEP3197C (D, E, F, G, H) (SUFFIX (VERSION) NUMBER①)

(FOIL SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


PbF
LSJB3197
TP1207
TP1209
R1246
C1238
R1245
R1243
R1244
R1203
C1236
C1237
R1206
C1254
C1255
C4536
C4535
C4534
C4539
C4546
R4526
R4521
R4523
L4501
C4543
R4503
R4527
C4029
R4027
R4017
C4018
L4003
C4023
L4001
R4026
R4016
R4008
C4012
R4007
C4011
C4015
C4040
C4039
C4043
C4044
C4016
C4034
C4035
R4066
L4004
R4059
R4058
R3176
R3177
C3107
C3108
C3106
R3173
R3174
R3167
JS3116
R3114
C3114
C3116
C3109
C3135
R3137
R3136
R3110
C3129
R3138
C3128
R3113
R3112
JS3115
JS3114
C3131
C3113
C3112
C3111
C3110
C3136
C3102
C3120
C3125
C3124
C3123
C3103
R3157
R3156
L3102
R3192
L3501
R3558
L3101
C3501
R3502
C3507
R3531
R3504
R3517
C3551
C3506
R3506
C3505
R3505
C3537
R3521
C3508
R3535
R3508
JS3502
C3513
C3509
R3507
C3511
R3509
C3512
JS3501
C3515
R3538
C3514
R3510
C3518
C3516
R3512
C3517
C3530
C3531
C3528
C3529
R1221
R1270
C1218
R1272
R1229
R1266
R1267
C1219
R1222
L1223
L1222
L1221
L1220
C1208
C1207
R1264
R1265
R1232
R1209
C1210
R1218
R1273
R1271
C1239
C1244
R1252
C1242
C1243
C1246
R1204
R1268
R1260
R1202

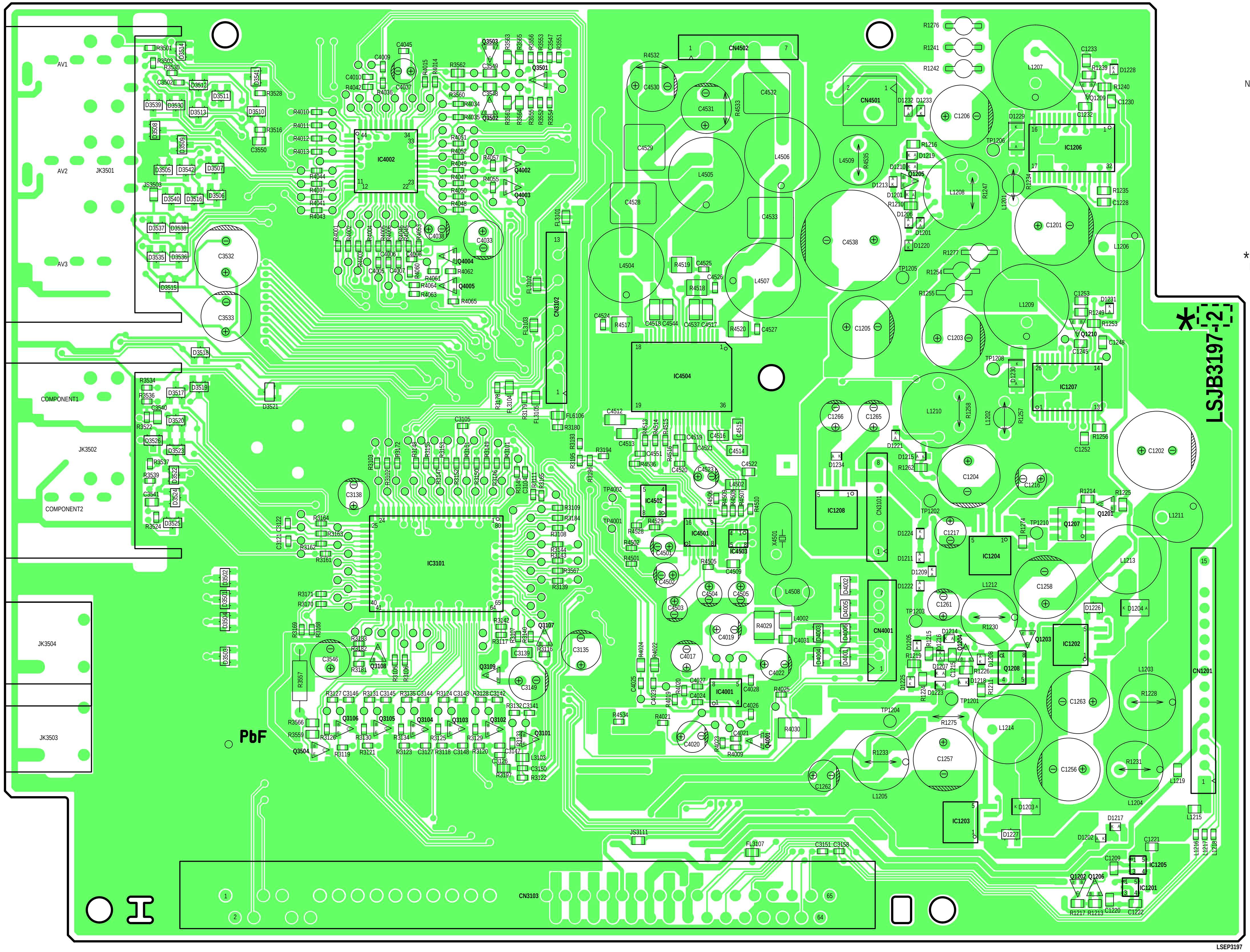
(DUAL PATTERNS)

COMPARISON CHART
OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

BASE P.C.B. LSEP3197A/LSEP3197C
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

BASE P.C.B. LSEP3197A (A, B, C) / LSEP3197C (D, E, F, G, H) (SUFFIX (VERSION) NUMBER②)
(COMPONENT SIDE)


AV1
AV2
AV3
JK3501
COMPONENT1
COMPONENT2
JK3502
JK3504
JK3503
IC4002
IC3101
IC4504
IC4501
IC4502
IC4503
IC4001
CN4502
CN4501
CN3102
CN3101
CN4001
CN1201
CN3103
IC1206
IC1207
IC1208
IC1204
IC1202
IC1203
IC1205
IC1201
LSJB3197-2
PbF
LSEP3197

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

*BASE P.C.B. SUFFIX (VERSION) NUMBER ②
REFER TO BASE P.C.B. REPLACEMENT NOTE.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

BASE P.C.B. LSEP3197A/LSEP3197C
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

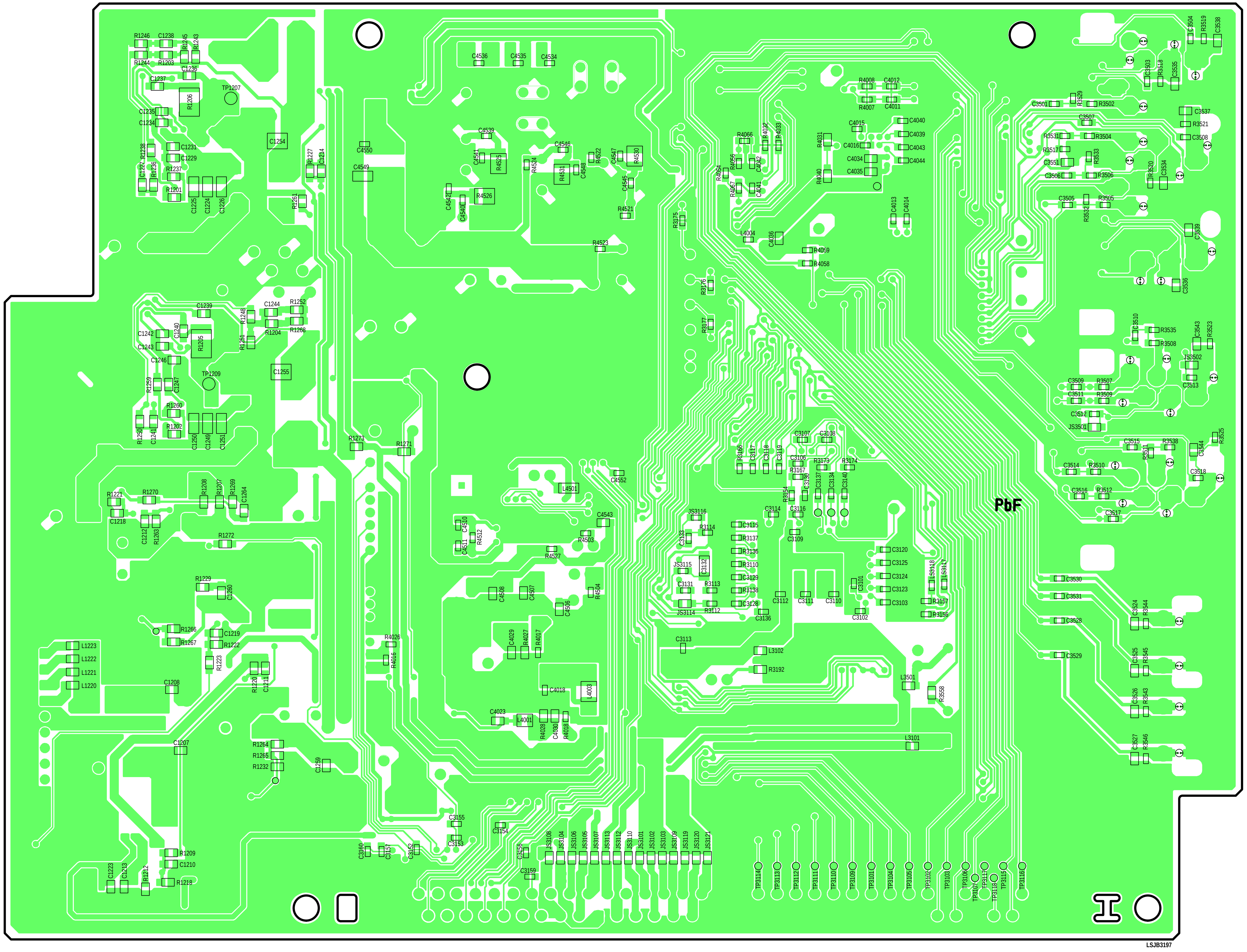
(DUAL PATTERNS)

BASE P.C.B. LSEP3197A (A, B, C) / LSEP3197C (D, E, F, G, H) (SUFFIX (VERSION) NUMBER②)

(FOIL SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.


R1246
C1238
R1244
R1203
C1236
C1237
TP1207
R1206
C1235
C1234
C1231
C1229
R1237
R1201
C1225
C1224
C1226
C1254
C4550
C4549
C4536
C4535
C4534
C4539
R4525
R4526
R4524
C4546
R4531
C4548
R4530
R4521
R4523
R3175
R4066
R4033
R4008
C4012
R4007
C4011
C4015
C4040
C4039
C4043
C4044
C4016
C4034
C4035
C4013
C4014
L4004
C4036
R4059
R4058
R3176
R3177
C1239
C1244
R1252
C1242
C1243
C1246
R1205
R1204
R1268
TP1209
C1255
R1260
R1202
C1250
C1249
C1251
R1273
R1271
L4501
C4552
C4543
R4503
R4527
C4510
C4511
R4512
R1221
R1270
C1218
R1208
R1207
R1269
C1264
R1272
R1229
C1260
R1266
R1267
C1219
R1222
R1223
L1223
L1222
L1221
L1220
C1208
R1220
C1211
R4026
R4016
C4029
R4027
R4017
C4018
L4003
C4023
L4001
R4028
C4030
R4018
C1207
R1264
R1265
R1232
C1259
C3155
C3154
C3153
C3156
C3159
C3150
C3151
C3152
R1209
C1210
R1218
C1223
C1213
R1212
JS3108
JS3104
JS3106
JS3105
JS3107
JS3113
JS3112
JS3110
JS3101
JS3102
JS3103
JS3109
JS3119
JS3120
JS3121
TP3114
TP3113
TP3112
TP3111
TP3110
TP3109
TP3101
TP3104
TP3105
TP3102
TP3103
TP3106
TP3107
TP3117
TP3118
TP3115
TP3116
C3107
C3108
C3106
R3173
R3174
R3167
C3114
C3116
JS3116
R3114
C3115
R3137
R3136
R3110
C3129
R3138
C3128
C3136
C3109
C3133
JS3115
C3132
C3131
R3113
JS3114
R3112
C3113
C3112
C3111
C3110
C3101
C3102
C3120
C3125
C3124
C3123
C3103
JS3118
JS3117
R3157
R3156
L3102
R3192
L3501
R3558
L3101
PbF
C3504
R3519
C3538
C3503
R3518
C3535
C3501
R3529
R3502
C3537
R3521
C3508
C3507
R3531
R3504
R3517
R3533
C3551
C3506
R3506
R3520
C3534
C3505
R3505
R3532
C3539
C3536
C3510
R3535
R3508
C3543
R3523
JS3502
C3513
C3509
R3507
C3511
R3509
C3512
JS3501
C3515
R3538
R3511
C3544
R3525
C3514
R3510
C3518
C3516
R3512
C3517
C3530
C3531
C3528
C3529
C3524
R3544
C3525
R3545
C3526
R3543
C3527
R3546
LSJB3197

(DUAL PATTERNS)

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - -	A
- - - - -	B
- - - - -	C
- - - - -	D
- - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

BASE P.C.B. LSEP3197A/LSEP3197C
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

14.3. POWER P.C.B.

POWER P.C.B. LSEP1206A1

(COMPONENT SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

***NOTE 1:**
WHEN SERVICING POWER P.C.B., DO NOT TURN THE VARIABLE RESISTOR (R1703, R1951) ON THE POWER P.C.B.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES, REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 6.3A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME TYPE 6.3A 250V

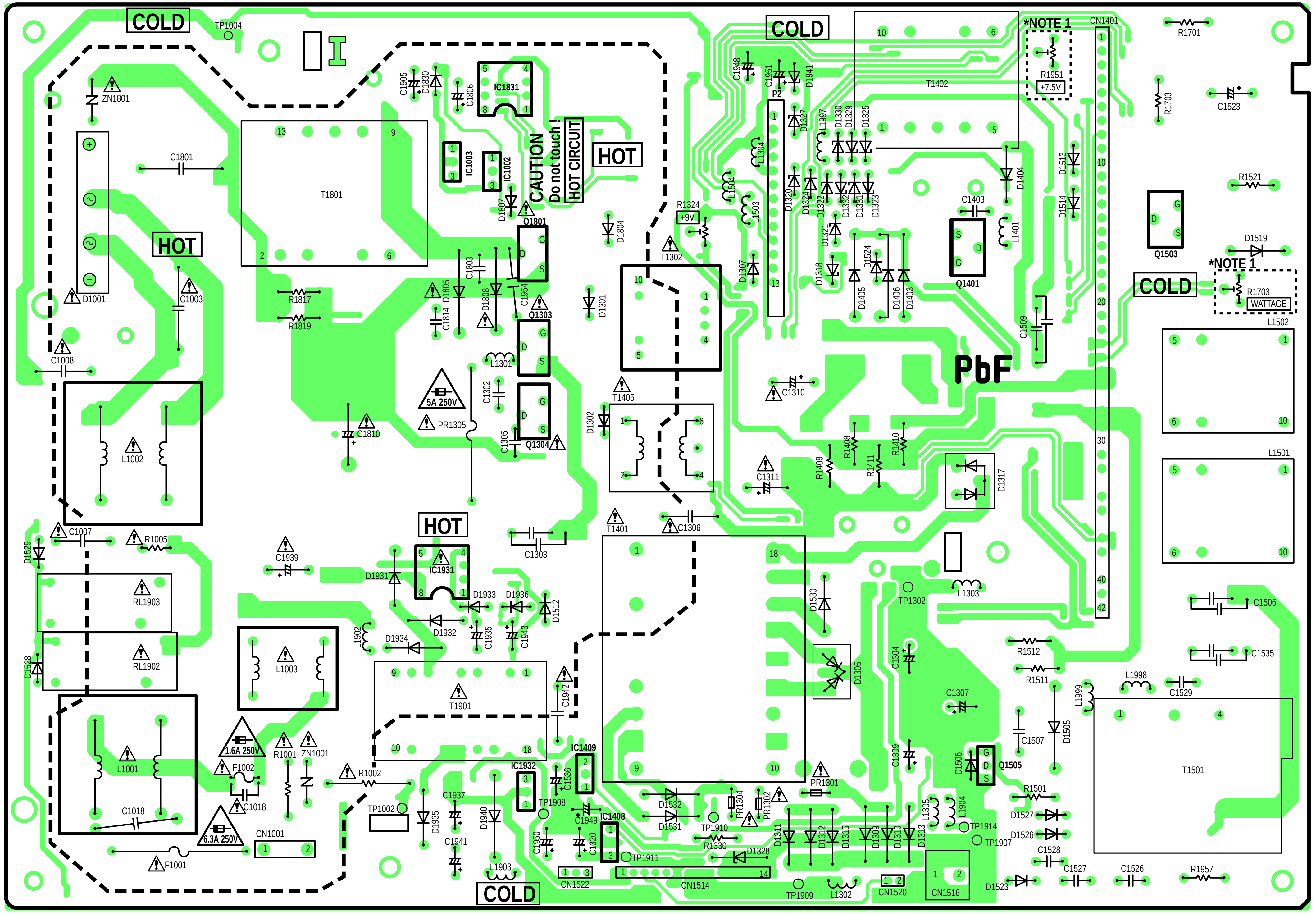
⚠ 6.3A 250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 5A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D' INCENDIE N' UTILISERQUE DES FUSIBLE DE MÉME TYPE 5A 250V

⚠ 5A 250V

CAUTION: FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH THE SAME TYPE 1.6A 250V FUSE.
ATTENTION: POUR UNE PROTECTION CONTINUE LES RISQUES D'T INCENDIE N'I UTILISERQUE DES FUSIBLE DE MÉME TYPE 1.6A 250V

⚠ 1.6A 250V


COLD
TP1004
HOT
CAUTION Do not touch ! HOT CIRCUIT
COLD
*NOTE 1
CN1401
R1701
R1951
+7.5V
T1402
R1703
C1523
ZN1801
C1801
T1801
IC1831
IC1003
IC1002
Q1801
D1001
C1003
R1817
R1819
C1008
L1002
R1324
+9V
T1302
T1405
D1302
D1301
Q1303
Q1304
PR1305
5A 250V
C1810
L1301
C1302
C1305
C1303
C1306
T1401
C1310
C1311
R1408
R1409
R1410
R1411
D1317
C1403
Q1401
L1401
D1404
D1513
D1514
Q1503
COLD
*NOTE 1
R1703
WATTAGE
L1502
L1501
R1521
D1519
PbF
C1509
HOT
IC1931
D1931
D1933
D1936
D1512
D1932
D1934
C1935
C1943
L1902
C1939
C1007
R1005
D1529
RL1903
RL1902
D1528
L1003
T1901
C1942
L1001
C1018
1.6A 250V
F1002
R1001
ZN1001
R1002
6.3A 250V
CN1001
F1001
TP1002
D1935
C1937
C1941
D1940
L1903
COLD
IC1932
IC1409
C1536
TP1908
C1949
IC1408
C1950
C1320
TP1911
CN1522
CN1514
D1532
D1531
TP1910
R1330
D1328
PR1304
PR1302
PR1301
TP1909
L1302
CN1520
CN1516
D1523
D1530
D1305
C1304
C1307
C1309
D1506
Q1505
C1507
D1505
TP1302
L1303
R1512
R1511
L1999
L1998
C1529
C1506
C1535
T1501
R1501
D1527
D1526
C1528
C1527
C1526
R1957
TP1914
TP1907
L1904
L1305
D1311
D1312
D1315
D1309
D1310
D1313
LSJB1206

HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.

(DUAL PATTERNS)

POWER P.C.B. LSEP1206A1

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/ PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

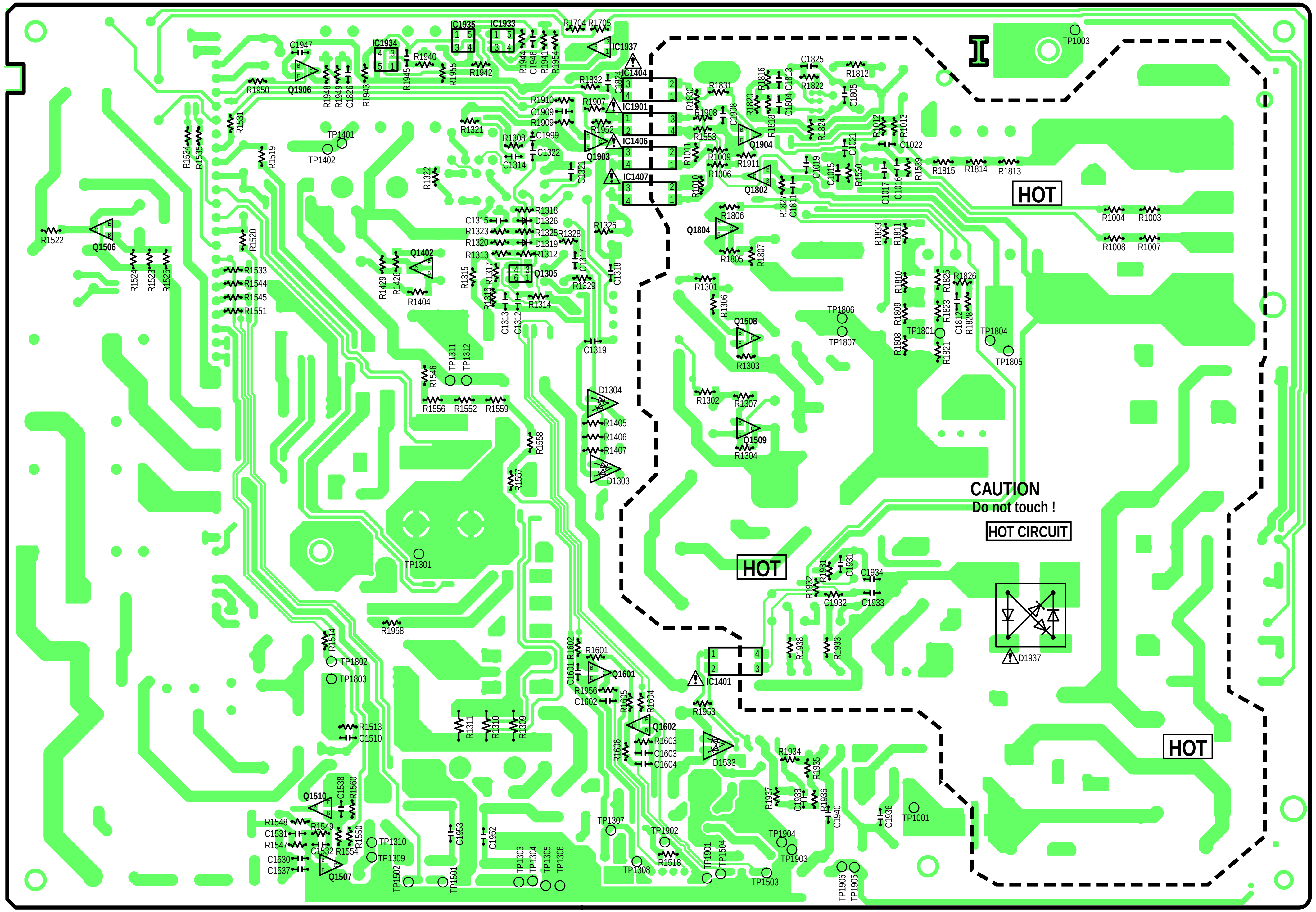
POWER P.C.B. LSEP1206A1

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.

(FOIL SIDE)


HOT
CAUTION
Do not touch !
HOT CIRCUIT
HOT
HOT
IC1401
IC1404
IC1406
IC1407
IC1901
IC1933
IC1934
IC1935
IC1937
D1937
TP1001
TP1003
TP1301

HOT CIRCUIT. BE CAREFUL AND USE AN ISOLATION TRANSFORMER WHEN SERVICING.

LSJB1206

(DUAL PATTERNS)

POWER P.C.B. LSEP1206A1

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

14.4. LCD DRIVE P.C.B.

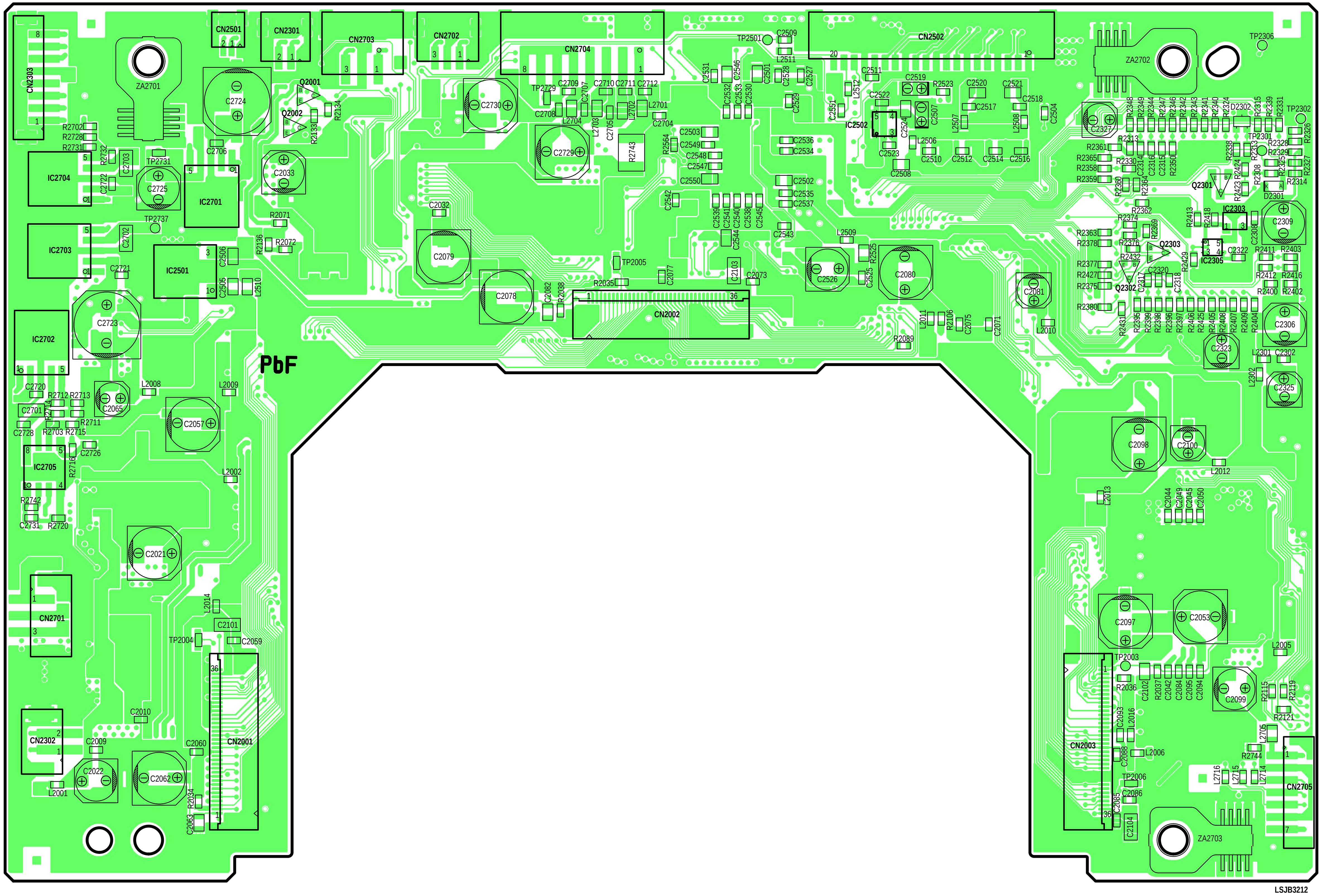
LCD DRIVE P.C.B. LSXA0772

(COMPONENT SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: MULTILAYER P.C.B.
THIS P.C.B. IS Multi-Layer P.C.B. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.


CN2303
ZA2701
CN2501
CN2301
CN2703
CN2702
CN2704
CN2502
ZA2702
TP2306
TP2501
TP2302
IC2704
IC2701
IC2703
IC2501
IC2702
IC2705
IC2502
IC2303
IC2305
Q2001
Q2002
Q2301
Q2302
Q2303
D2301
D2302
CN2002
TP2005
TP2004
TP2003
TP2006
TP2729
TP2731
TP2737
TP2301
PbF
CN2701
CN2302
CN2001
CN2003
CN2705
ZA2703
C2724
C2730
C2729
C2079
C2078
C2080
C2526
C2081
C2033
C2725
C2723
C2065
C2057
C2021
C2022
C2062
C2097
C2053
C2099
C2098
C2100
C2309
C2306
C2323
C2325
C2327
L2008
L2009
L2002
L2014
L2001
L2010
L2012
L2013
L2005
L2006
L2509
LSJB3212

LCD DRIVE P.C.B. LSXA0772

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

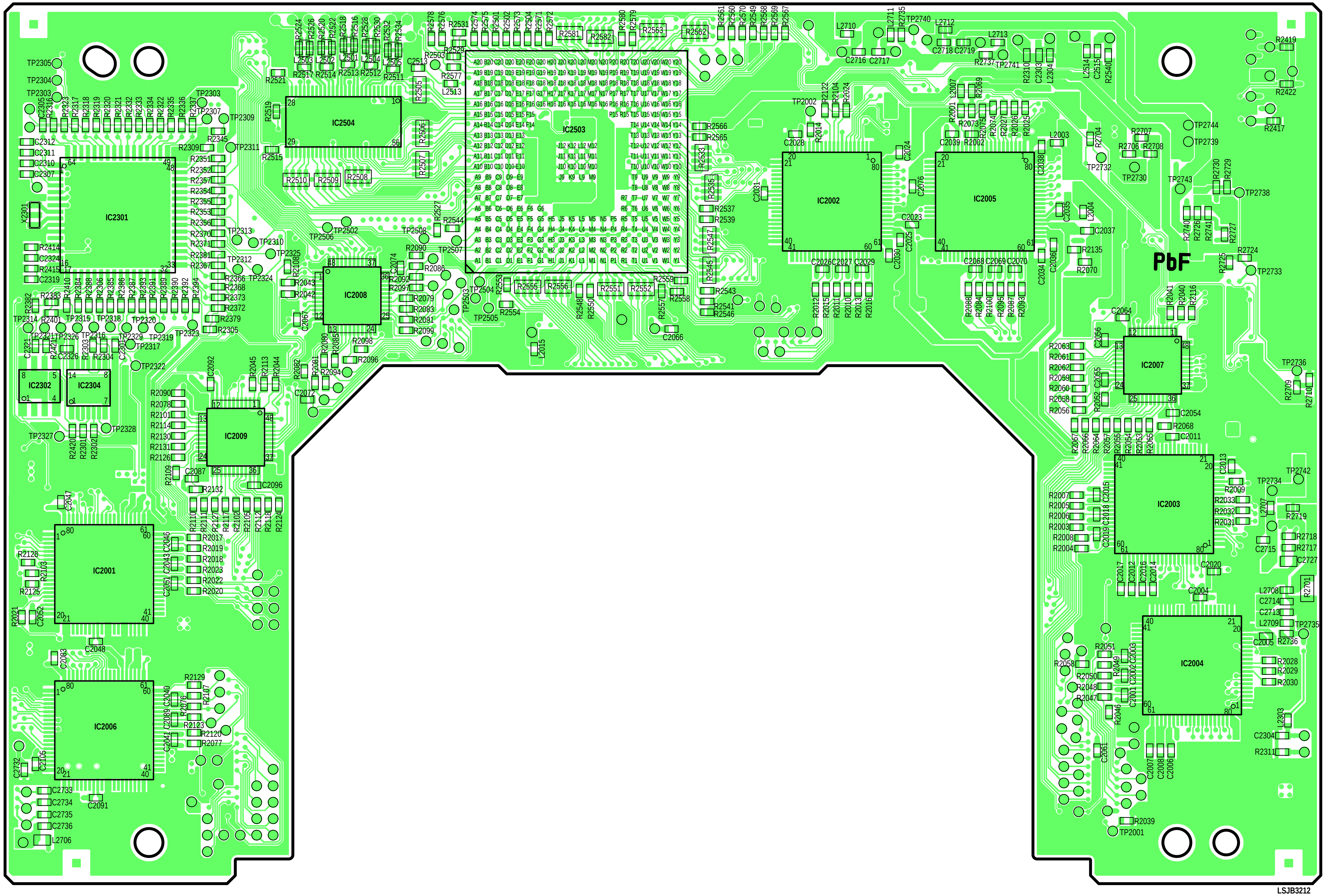
LCD DRIVE P.C.B. LSXA0772

(FOIL SIDE)

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE: MULTILAYER P.C.B.
THIS P.C.B. IS Multi-Layer P.C.B. THIS CIRCUIT BOARD SHOWS COMPONENT LAYOUT-PATTERN FOR COMPONENT SIDE AND FOIL SIDE. LAYOUT PATETRNS ARE SINGLE PATTERN FOR EACH SIDE THAT MAKE EASY TO SIGHT THE COMPONENT LAYOUT.

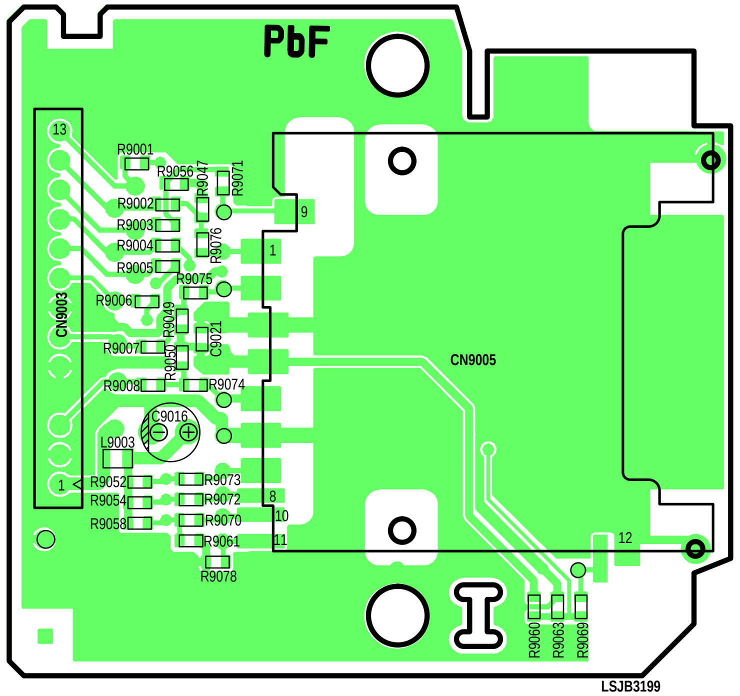

IC2504
IC2503
IC2301
IC2008
IC2002
IC2005
IC2007
IC2302
IC2304
IC2009
IC2003
IC2001
IC2004
IC2006
PbF
LSJB3212

LCD DRIVE P.C.B. LSXA0772

PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

14.5. SD CARD P.C.B. / IRIS P.C.B. / HALL-S P.C.B.

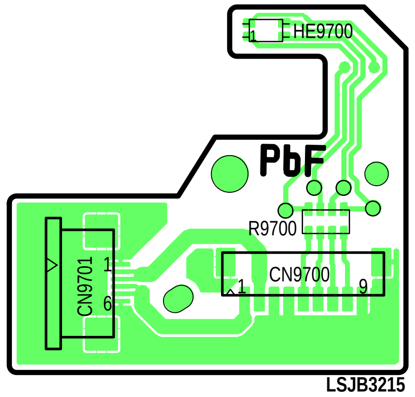
SD CARD P.C.B. LSEP3199A


PbF
CN9003
CN9005
R9001
R9056
R9047
R9071
R9002
R9003
R9004
R9005
R9076
R9075
R9006
R9049
R9007
R9050
C9021
R9008
R9074
C9016
L9003
R9052
R9054
R9058
R9073
R9072
R9070
R9061
R9078
R9060
R9063
R9069
13
1
9
8
10
11
12
LSJB3199

HALL-S P.C.B. LSEP3215A

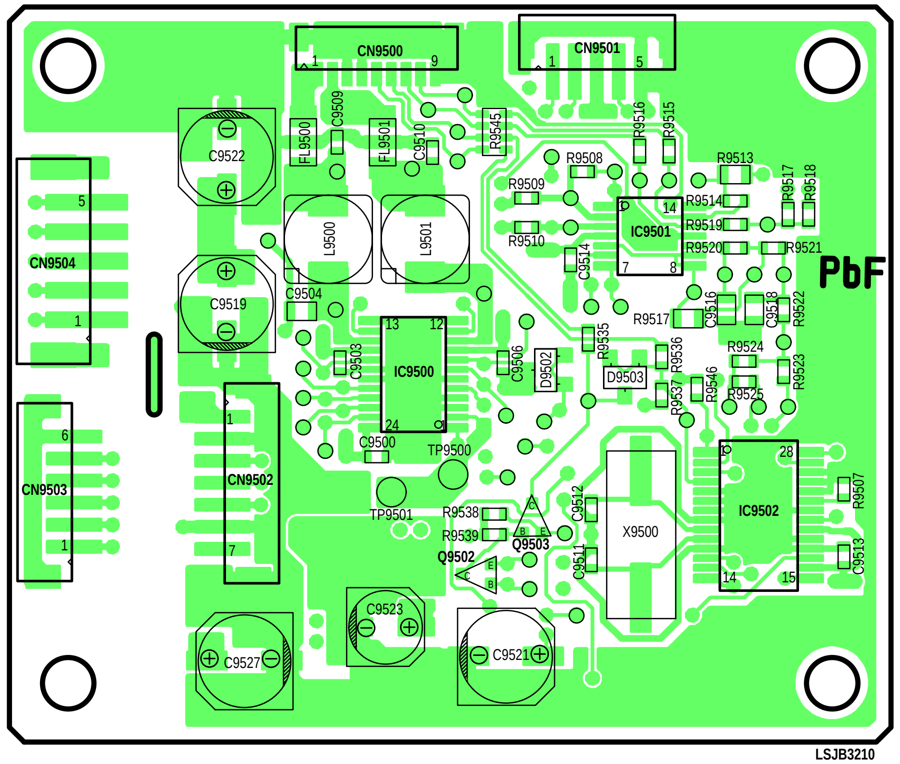
NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.


HE9700
PbF
R9700
CN9701
CN9700
1
6
9
LSJB3215

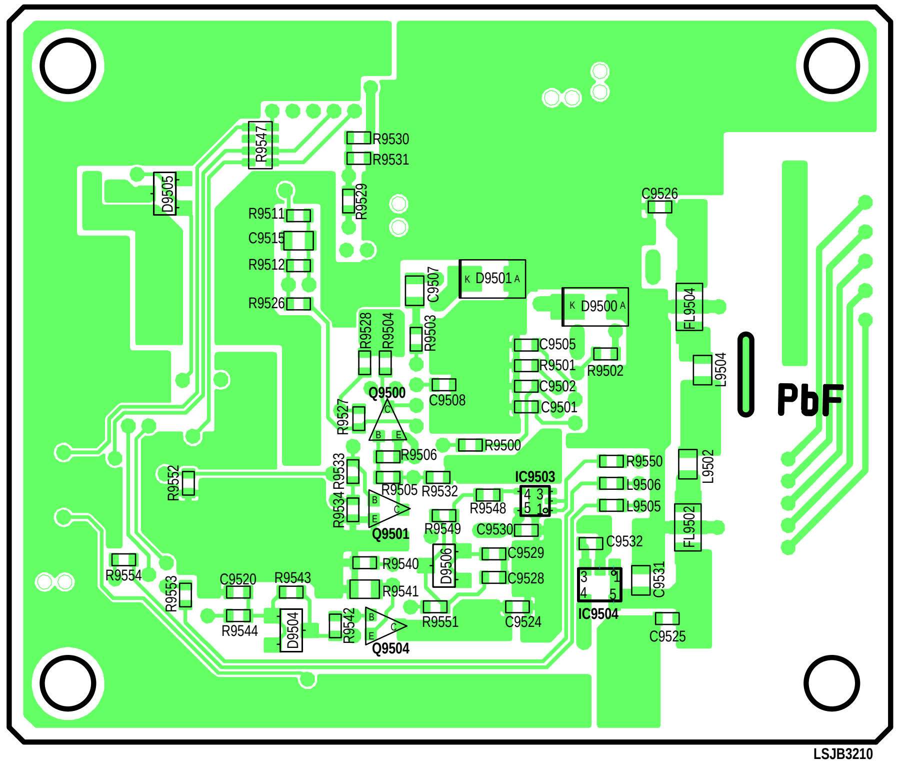
IRIS P.C.B. LSXA0773

(COMPONENT SIDE)


CN9500
CN9501
CN9502
CN9503
CN9504
C9522
C9519
C9509
C9510
C9504
C9503
C9500
C9506
C9514
C9516
C9518
C9512
C9511
C9513
C9523
C9527
C9521
FL9500
FL9501
L9500
L9501
R9545
R9508
R9509
R9510
R9516
R9515
R9513
R9514
R9519
R9520
R9517
R9518
R9521
R9522
R9535
R9536
R9537
R9546
R9524
R9525
R9523
R9538
R9539
R9507
IC9500
IC9501
IC9502
D9502
D9503
Q9502
Q9503
TP9500
TP9501
X9500
PbF
LSJB3210

(DUAL PATTERNS)

(FOIL SIDE)


R9547
R9530
R9531
D9505
R9529
R9511
C9515
R9512
R9526
C9526
C9507
D9501
D9500
FL9504
R9528
R9504
R9503
C9505
R9501
C9502
C9501
R9502
L9504
Q9500
C9508
R9527
R9500
R9506
R9550
L9506
L9505
L9502
IC9503
R9533
R9534
R9505
R9532
R9548
Q9501
R9549
C9530
C9529
C9528
C9532
FL9502
R9552
R9554
R9553
C9520
R9543
R9544
D9504
R9542
R9540
R9541
D9506
R9551
C9524
Q9504
IC9504
C9531
C9525
PbF
LSJB3210

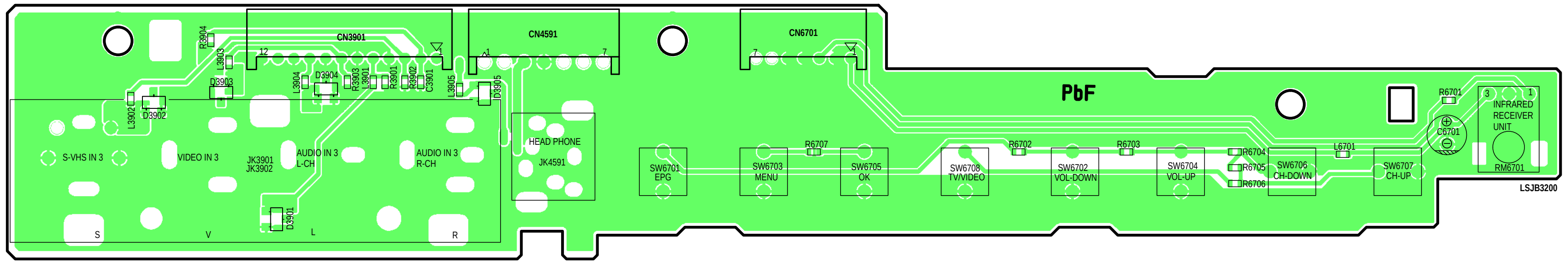
(DUAL PATTERNS)

14.6. FRONT JACK / OPERATION P.C.B. / POWER SWITCH P.C.B. / THERMISTOR 2 P.C.B. / COVER SWITCH P.C.B.

NOTE:
FOR SCHEMATIC DIAGRAM AND CIRCUIT BOARD LAYOUT NOTES,
REFER TO BEGINNING OF SCHEMATIC SECTION.

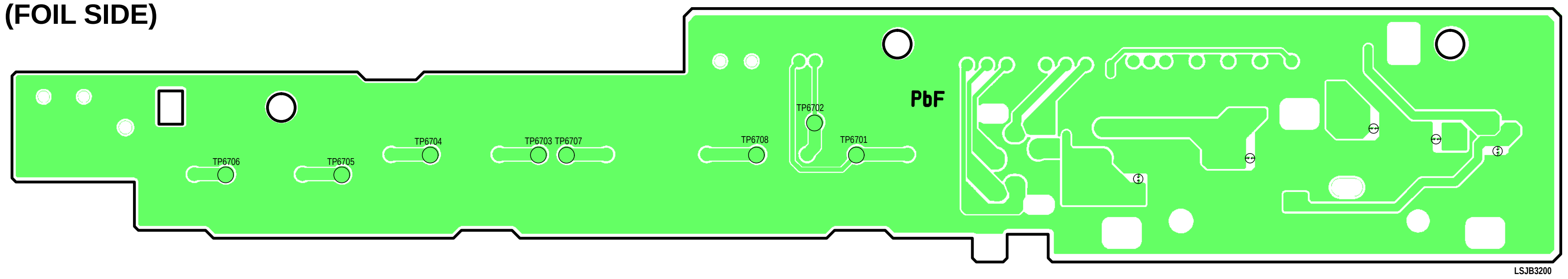
FRONT JACK / OPERATION P.C.B. LSEP3200A

(COMPONENT SIDE)


R3904
CN3901
12
1
L3903
D3903
L3904
D3904
R3903
L3901
R3901
R3902
C3901
L3905
D3905
CN4591
1
7
CN6701
7
1
L3902
D3902
S-VHS IN 3
VIDEO IN 3
JK3901
JK3902
AUDIO IN 3
L-CH
AUDIO IN 3
R-CH
HEAD PHONE
JK4591
D3901
S
V
L
R
SW6701
EPG
SW6703
MENU
R6707
SW6705
OK
SW6708
TV/VIDEO
R6702
SW6702
VOL-DOWN
R6703
SW6704
VOL-UP
R6704
R6705
R6706
SW6706
CH-DOWN
L6701
SW6707
CH-UP
PbF
R6701
C6701
3
1
INFRARED
RECEIVER
UNIT
RM6701
LSJB3200

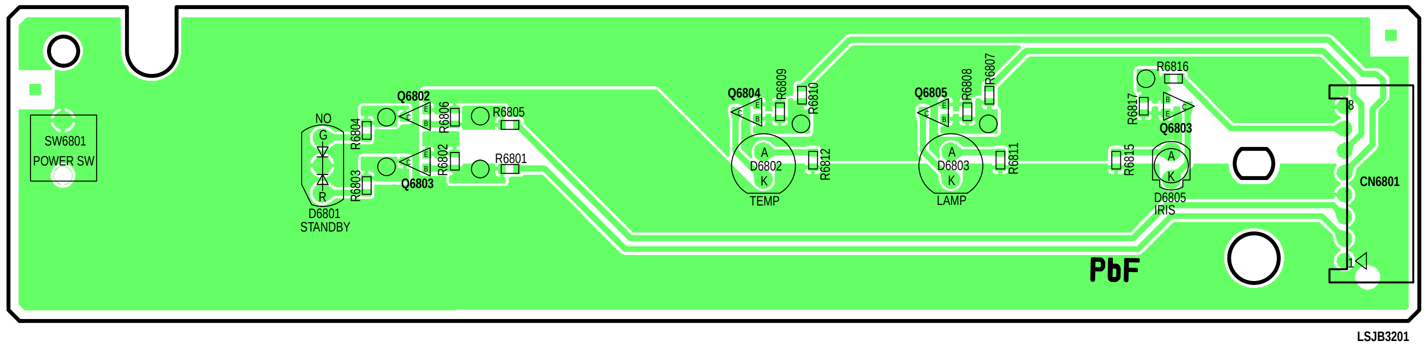
(DUAL PATTERNS)

(FOIL SIDE)


TP6706
TP6705
TP6704
TP6703 TP6707
TP6708
TP6702
TP6701
PbF
LSJB3200

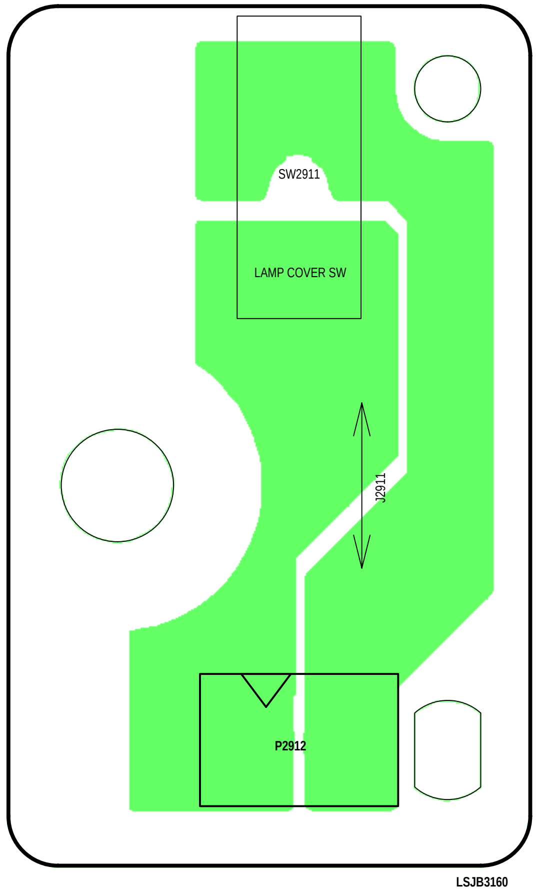
(DUAL PATTERNS)

POWER SWITCH P.C.B. LSEP3201A


SW6801
POWER SW
NO
G
R
D6801
STANDBY
R6804
R6803
Q6802
Q6803
R6806
R6802
R6805
R6801
Q6804
R6809
R6810
D6802
A
K
TEMP
R6812
Q6805
R6808
R6807
D6803
A
K
LAMP
R6811
R6816
R6817
Q6803
R6815
D6805
IRIS
8
1
CN6801
PbF
LSJB3201

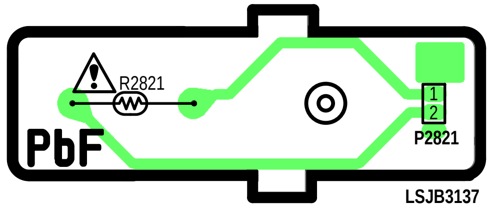
NOTE:
CIRCUIT BOARD LAYOUT INCLUDES COMPONENTS WHICH ARE NOT USED.
PLEASE REFER TO THE SCHEMATIC DIAGRAM AND PARTS LIST FOR PROPER PARTS CONTENT.

COVER SWITCH P.C.B. LSEP3160A


SW2911
LAMP COVER SW
J2911
P2912
LSJB3160

THERMISTOR 2 P.C.B. LSEP3137B

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE
SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS,
USE ONLY THE SPECIFIED PARTS.


R2821
PbF
1
2
P2821
LSJB3137

FRONT JACK / OPERATION P.C.B. LSEP3200A
POWER SWITCH P.C.B. LSEP3201A
THERMISTOR 2 P.C.B. LSEP3137B
COVER SWITCH P.C.B. LSEP3160A

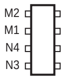
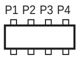
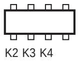
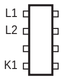
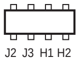
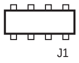
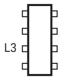
PT-52LCX66/PT-56LCX66/PT-61LCX66/PT-52LCX16/
PT-56LCX16/PT-52LCX66-K/PT-56LCX16-K/PT-61LCX66-K

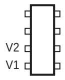
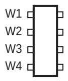
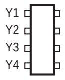
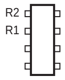
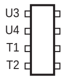
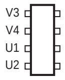
15 Appendix Information of Schematic Diagram

15.1. CHECKING POINT TABLE OF THE CSP IC

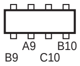
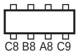
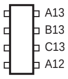
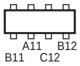
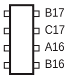
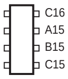
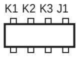
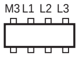
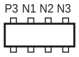
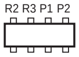
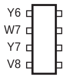
CHECKING POINT TABLE

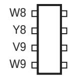
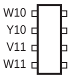
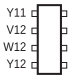
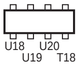
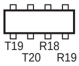
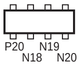
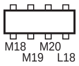
Check Point of IC5001

Pin	Name	Voltage	Check Point	WF No.	Remarks
P26	ROE2	0.6	Pin 7 of IC5700	WF26	COMPONENT SIDE
N25	ROE3	0.4	Pin 6 of IC5700		
N26	ROE4	0.9	Pin 4 of IC5700		
M24	ROE5	0.4	Pin 3 of IC5700		
M25	ROE6	1.2	Pin 2 of IC5700		
M26	ROE7	0.7	Pin 56 of IC5700		
L23	ROE8	1.3	Pin 55 of IC5700		
L24	ROE9	1.3	Pin 54 of IC5700		
K24	GOE2	0.6	Pin 18 of IC5700	WF27	
K25	GOE3	0.4	Pin 16 of IC5700		
K26	GOE4	0.8	Pin 15 of IC5700		
J25	GOE5	0.9	Pin 14 of IC5700		
J26	GOE6	0.9	Pin 12 of IC5700		
H23	GOE7	1.0	Pin 11 of IC5700		
H24	GOE8	1.3	Pin 10 of IC5700		
H25	GOE9	1.3	Pin 8 of IC5700		
G24	BOE2	1.1	Pin 28 of IC5700	WF28	
G25	BOE3	0.9	Pin 27 of IC5700		
G26	BOE4	1.0	Pin 25 of IC5700		
F24	BOE5	0.9	Pin 24 of IC5700		
F25	BOE6	1.0	Pin 23 of IC5700		
F26	BOE7	1.2	Pin 22 of IC5700		
E24	BOE8	1.3	Pin 20 of IC5700		
E25	BOE9	1.3	Pin 19 of IC5700		
M2	GYIA0	0	R5016 (LEFT) 	WF15	COMPONENT SIDE
M1	GYIA1	1.1			
N4	GYIA2	0			
N3	GYIA3	0			
P4	GYIA4	0.9	R5019 (UPPER) 		COMPONENT SIDE
P3	GYIA5	1.1			
P2	GYIA6	2.0			
P1	GYIA7	2.2			
G3	BUIA0	0.1	R5008 (LOWER)		COMPONENT SIDE
G2	BUIA1	0.1	R5009 (LOWER)		COMPONENT SIDE
K4	BUIA2	0.1	R5012 (LOWER) 		COMPONENT SIDE
K3	BUIA3	0.1			
K2	BUIA4	0.1			
K1	BUIA5	0.7	R5013 (LEFT) 		COMPONENT SIDE
L2	BUIA6	1.7			
L1	BUIA7	0			
H2	RVIA0	0.1	R5011 (LOWER) 		COMPONENT SIDE
H1	RVIA1	0			
J3	RVIA2	0.5			
J2	RVIA3	0.6			
J1	RVIA4	0.7	R5012 (LOWER) 		COMPONENT SIDE
L3	RVIA5	0.7	R5013 (LEFT) 		COMPONENT SIDE
M4	RVIA6	1.7	R5014 (LEFT)		COMPONENT SIDE
M3	RVIA7	1.8	R5015 (LEFT)		COMPONENT SIDE

Pin	Name	Voltage	Check Point	WF No.	Remarks
V2	YIB0	1.9	R5922 (LEFT) 	WF21	COMPONENT SIDE
V1	YIB1	2.0			
W4	YIB2	2.0	R5921 (LEFT) 		COMPONENT SIDE
W3	YIB3	2.7			
W2	YIB4	2.2			
W1	YIB5	2.2			
Y4	YIB6	1.3	R5920 (LEFT) 		COMPONENT SIDE
Y3	YIB7	1.0			
Y2	YIB8	1.2			
Y1	YIB9	0.8			
R2	UVIB0	1.8	R5922 (LEFT) 	WF22	COMPONENT SIDE
R1	UVIB1	0.6			
T2	UVIB2	0.7	R5923 (LEFT) 		COMPONENT SIDE
T1	UVIB3	0.7			
U4	UVIB4	0.6			
U3	UVIB5	0.6			
U2	UVIB6	0.6	R5924 (LEFT) 		COMPONENT SIDE
U1	UVIB7	0.5			
V4	UVIB8	0.6			
V3	UVIB9	0.7			
N2	HSIA	3.5	R5017 (LEFT)	WF17	COMPONENT SIDE
N1	VSIA	0.3	R5018 (UPPER)	WF16	COMPONENT SIDE
G1	CLKIA	1.1	R5010 (LOWER)	WF18	COMPONENT SIDE
H3	CLKOA	1.0	R5043 (LEFT)	WF19	COMPONENT SIDE
AA2	HSIB	0.1	R5929 (LEFT)	WF24	COMPONENT SIDE
B23	VSIB	0.1	R5931 (LEFT)	WF23	COMPONENT SIDE
B20	HSIC	3.1	R6094 (UPPER)	WF45	FOIL SIDE
A20	VSIC	3.3	R6093 (UPPER)	WF46	FOIL SIDE
D25	HSOE	3.4	R5128 (UPPER)	WF47	COMPONENT SIDE
D26	VSOE	3.5	R5129 (UPPER)	WF48	COMPONENT SIDE
C11 B12	PADDVDD	3.5	L5007 (RIGHT)	—	FOIL SIDE
AC8 AC9 AD4 ⋮ etc.	VDD25	2.6	L5005 (LEFT)	—	COMPONENT SIDE
D13 D14 D21 ⋮ etc.	VDD	1.3	L5006 (RIGHT)	—	COMPONENT SIDE
A10 A12 B26 ⋮ etc.	VDDW	3.5	L5004 (LOWER)	—	COMPONENT SIDE
AA3	VDDP	1.3	R5090 (LOWER)	—	FOIL SIDE
AC25	VDD_DLL0	1.2	R5063 (RIGHT)	—	FOIL SIDE
AB2	VDD_DLL1	1.3	R5062 (LEFT)	—	FOIL SIDE

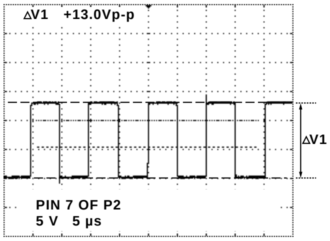
Check Point of IC2503

Pin	Name	Voltage	Check Point	WF No.	Remarks
B10	RIN2	0.4	R2509 (LOWER) 	WF30	FOIL SIDE
C10	RIN3	1.5			
A9	RIN4	0.2			
B9	RIN5	0.3			
C9	RIN6	0.3	R2510 (LOWER) 		FOIL SIDE
A8	RIN7	0.7			
B8	RIN8	0.6			
C8	RIN9	0.9			
A13	GIN2	0.4	R2507 (RIGHT) 	WF31	FOIL SIDE
B13	GIN3	1.5			
C13	GIN4	0.3			
A12	GIN5	0.3			
B12	GIN6	0.3	R2508 (LOWER) 		FOIL SIDE
C12	GIN7	0.8			
A11	GIN8	0.5			
B11	GIN9	0.9			
B17	BIN2	0.5	R2505 (RIGHT) 	WF32	FOIL SIDE
C17	BIN3	1.5			
A16	BIN4	0.4			
B16	BIN5	0.4			
C16	BIN6	0.4	R2506 (RIGHT) 		FOIL SIDE
A15	BIN7	0.8			
B15	BIN8	0.7			
C15	BIN9	0.9			
J3	R1OUT9	1.0	R2554 (LEFT)	WF33	FOIL SIDE
J2	R1OUT8	0.8	R2553 (UPPER)		FOIL SIDE
J1	R1OUT7	0.4	R2555 (UPPER) 		FOIL SIDE
K3	R1OUT6	0.9			
K2	R1OUT5	1.1			
K1	R1OUT4	0.6			
L3	R1OUT3	0.5	R2556 (UPPER) 		FOIL SIDE
L2	R1OUT2	0.5			
L1	R1OUT1	0.8			
M3	R1OUT0	0.7			
M2	R2OUT9	1.0	R2550 (UPPER)		FOIL SIDE
M1	R2OUT8	0.8	R2548 (UPPER)		FOIL SIDE
N3	R2OUT7	0.4	R2551 (UPPER) 		FOIL SIDE
N2	R2OUT6	0.9			
N1	R2OUT5	1.1			
P3	R2OUT4	0.8			
P2	R2OUT3	0.4	R2552 (UPPER) 		FOIL SIDE
P1	R2OUT2	0.5			
R3	R2OUT1	0.8			
R2	R2OUT0	0.7			
V6	G1OUT9	1.0	R2541 (LEFT)	WF35	FOIL SIDE
W6	G1OUT8	0.6	R2543 (LEFT)		FOIL SIDE
Y6	G1OUT7	0.6	R2545 (LEFT) 		FOIL SIDE
W7	G1OUT6	0.9			
Y7	G1OUT5	0.5			
V8	G1OUT4	0.6			

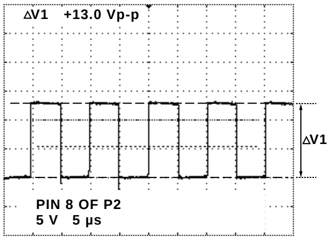
Pin	Name	Voltage	Check Point	WF No.	Remarks
W8	G1OUT3	0.4	R2547 (LEFT) 	WF35	FOIL SIDE
Y8	G1OUT2	0.7			
V9	G1OUT1	0.7			
W9	G1OUT0	0.9			
Y9	G2OUT9	1.0	R2539 (LEFT)		FOIL SIDE
V10	G2OUT8	0.6	R2537 (LEFT)		FOIL SIDE
W10	G2OUT7	0.6	R2535 (LEFT) 		FOIL SIDE
Y10	G2OUT6	0.9			
V11	G2OUT5	0.5			
W11	G2OUT4	0.6			
Y11	G2OUT3	0.4	R2533 (LEFT) 		FOIL SIDE
V12	G2OUT2	0.7			
W12	G2OUT1	0.7			
Y12	G2OUT0	0.9			
V19	B1OUT9	1.1	R2560 (LOWER)	WF37	FOIL SIDE
V20	B1OUT8	0.7	R2561 (LOWER)		FOIL SIDE
U18	B1OUT7	0.6	R2562 (LOWER) 		FOIL SIDE
U19	B1OUT6	1.1			
U20	B1OUT5	1.1			
T18	B1OUT4	0.8			
T19	B1OUT3	0.7	R2563 (LOWER) 		FOIL SIDE
T20	B1OUT2	0.5			
R18	B1OUT1	0.6			
R19	B1OUT0	1.0			
R20	B2OUT9	1.2	R2579 (LOWER)		FOIL SIDE
P19	B2OUT8	0.7	R2580 (LOWER)		FOIL SIDE
P20	B2OUT7	0.6	R2582 (LOWER) 		FOIL SIDE
N18	B2OUT6	1.1			
N19	B2OUT5	1.1			
N20	B2OUT4	0.8			
M18	B2OUT3	0.7	R2581 (LOWER) 		FOIL SIDE
M19	B2OUT2	0.5			
M20	B2OUT1	0.6			
L18	B2OUT0	1.0			
R1	SHCLKR	4.8	R2557 (UPPER)	WF49	FOIL SIDE
V13	SHCLKG	4.8	R2564 (UPPER)	WF50	COMPONENT SIDE
L19	SHCLKB	5.0	R2571 (LOWER)	WF51	FOIL SIDE
E1	DCLK	3.2	TP2505	WF52	FOIL SIDE
A2	VSYNC	3.4	TP2502	WF53	FOIL SIDE
A1	HSYNC	3.1	TP2506	WF54	FOIL SIDE
E20	RESET	3.3	R2529 (RIGHT)	—	FOIL SIDE
D7 D8 D9 ⋮ etc.	VDD1	1.3	Pin 3 of IC2501	—	COMPONENT SIDE
G3 H4 H5 ⋮ etc.	VDD2	3.4	L2510 (UPPER)	—	COMPONENT SIDE

15.2. WAVEFORM TABLE

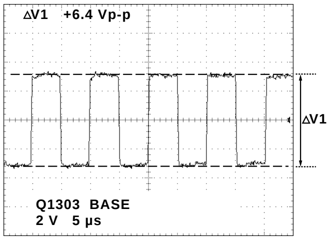
WAVEFORM TABLE



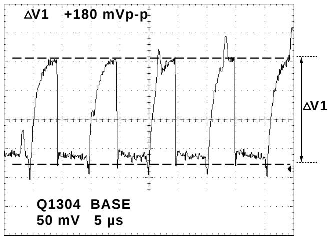
WF1



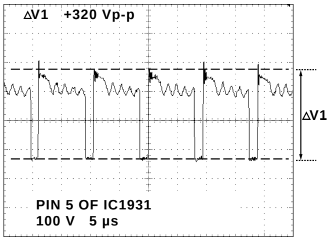
WF2



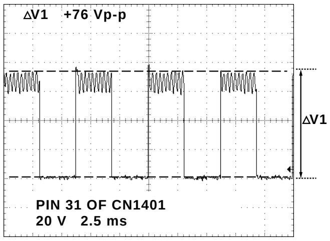
WF3



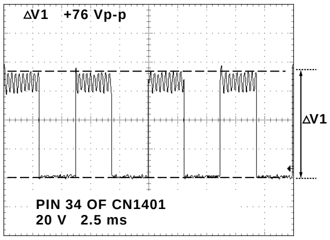
WF4



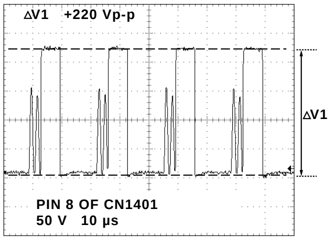
WF5



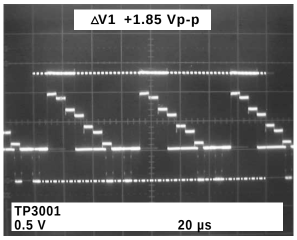
WF6



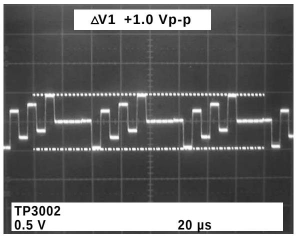
WF7



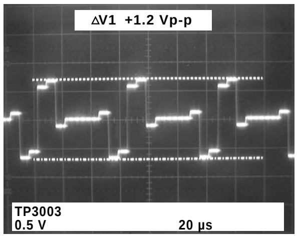
WF8



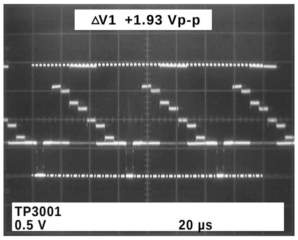
WF9



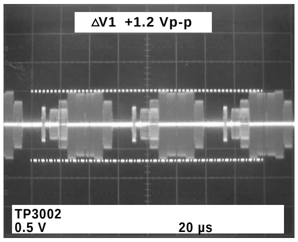
WF10



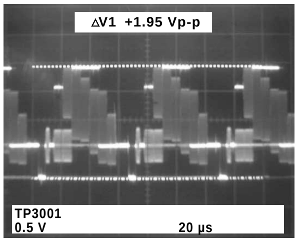
WF11



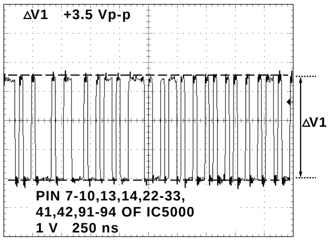
WF12



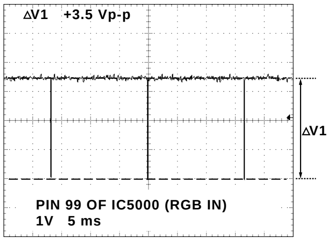
WF13



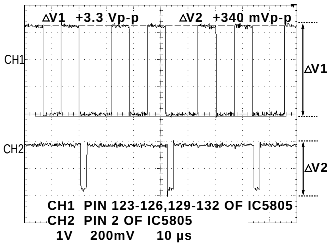
WF14



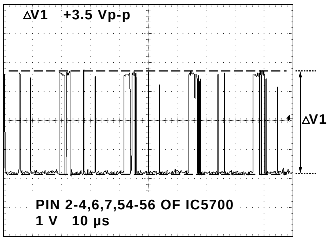
WF15



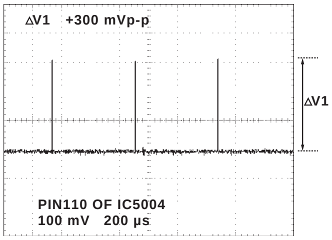
WF16



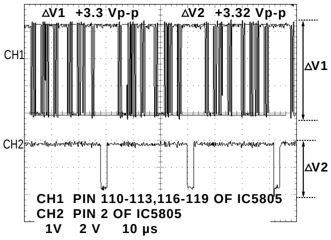
CH1 WF21
CH2 WF24



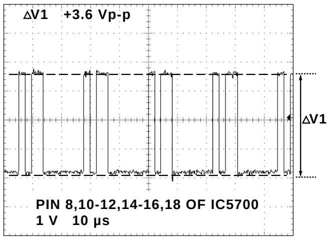
WF26



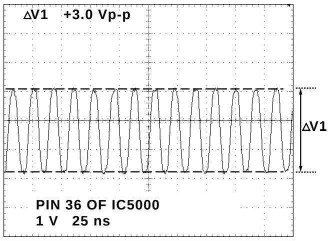
WF17



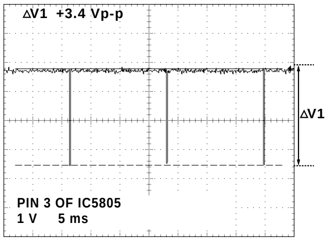
CH1 WF22
CH2 WF24



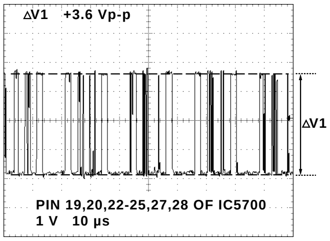
WF27



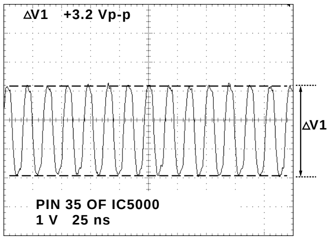
WF18



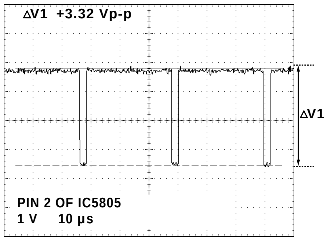
WF23



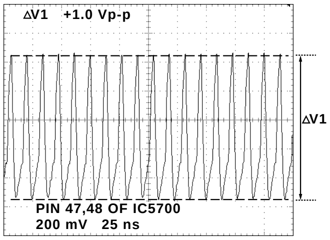
WF28



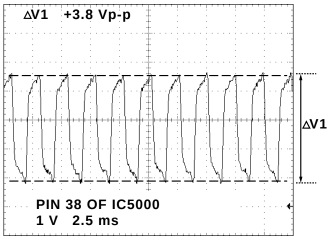
WF19



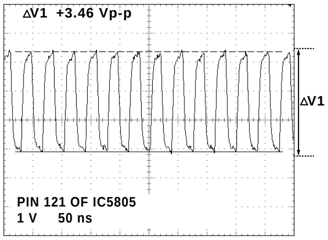
WF24



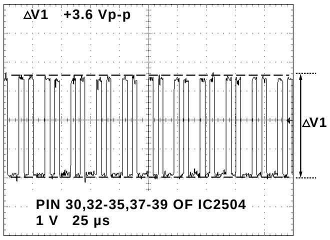
WF29



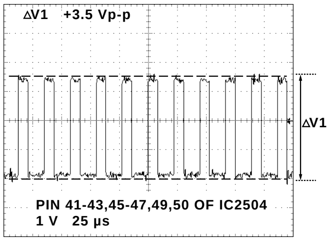
WF20



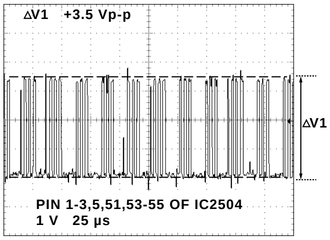
WF25



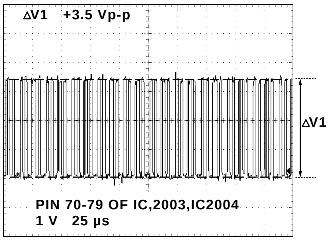
WF30



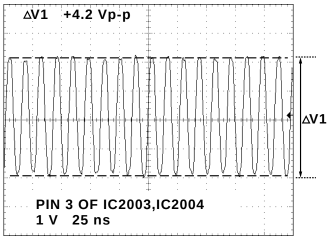
WF31



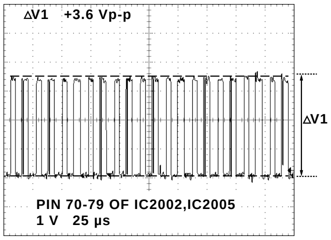
WF32



WF33



WF34



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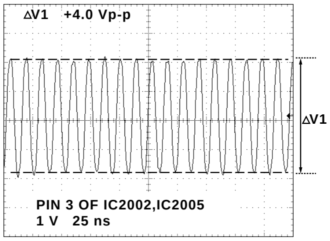
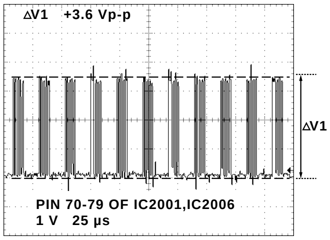


WF36



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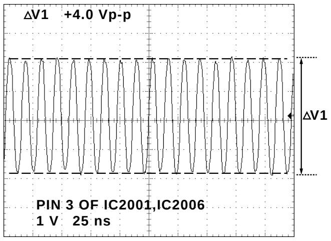
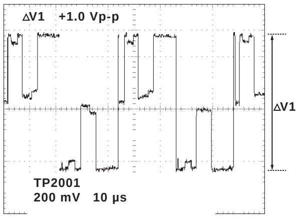
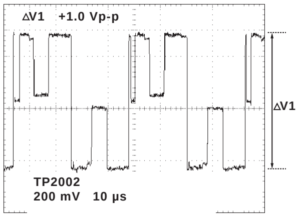


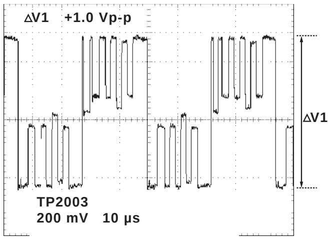
WF38



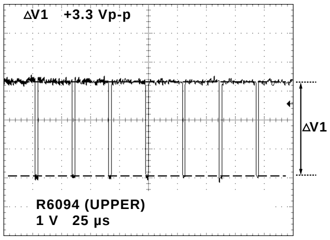
WF42



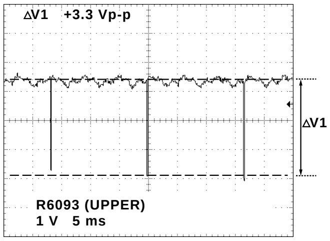
WF43



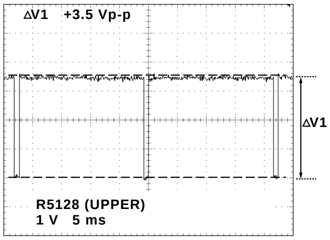
WF44



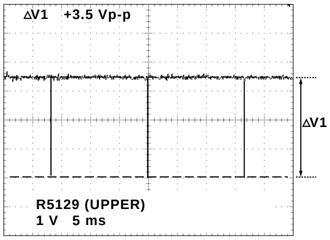
WF45



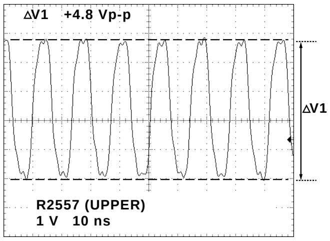
WF46



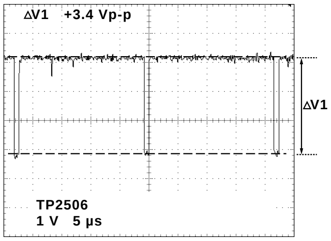
WF47



WF48



WF49



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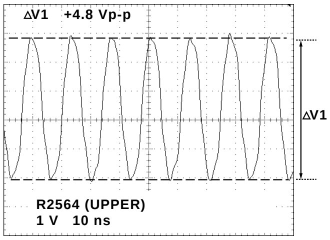
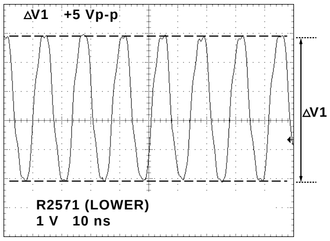
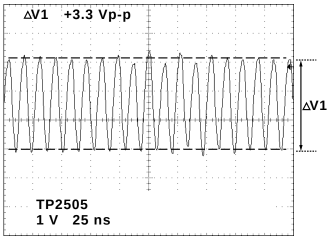


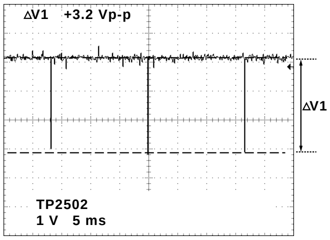
WF50



WF51



WF52



WF53

16 Exploded Views (Cabinet Section)

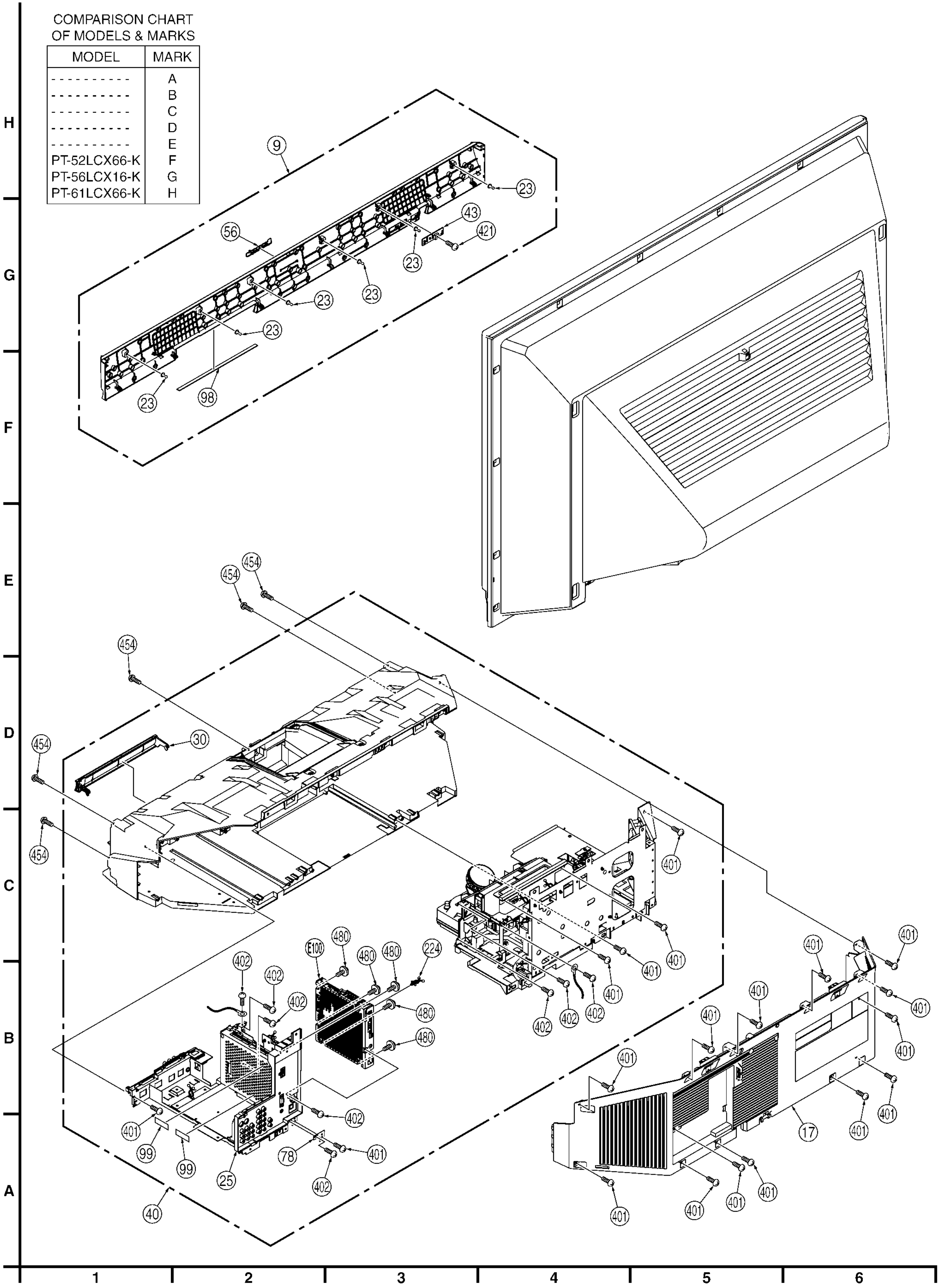
16.1. MAIN PARTS SECTION

❶ 52 INCH MAIN PARTS SECTION (Models: A, D, F)

Note: Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.

COMPARISON CHART OF MODELS & MARKS

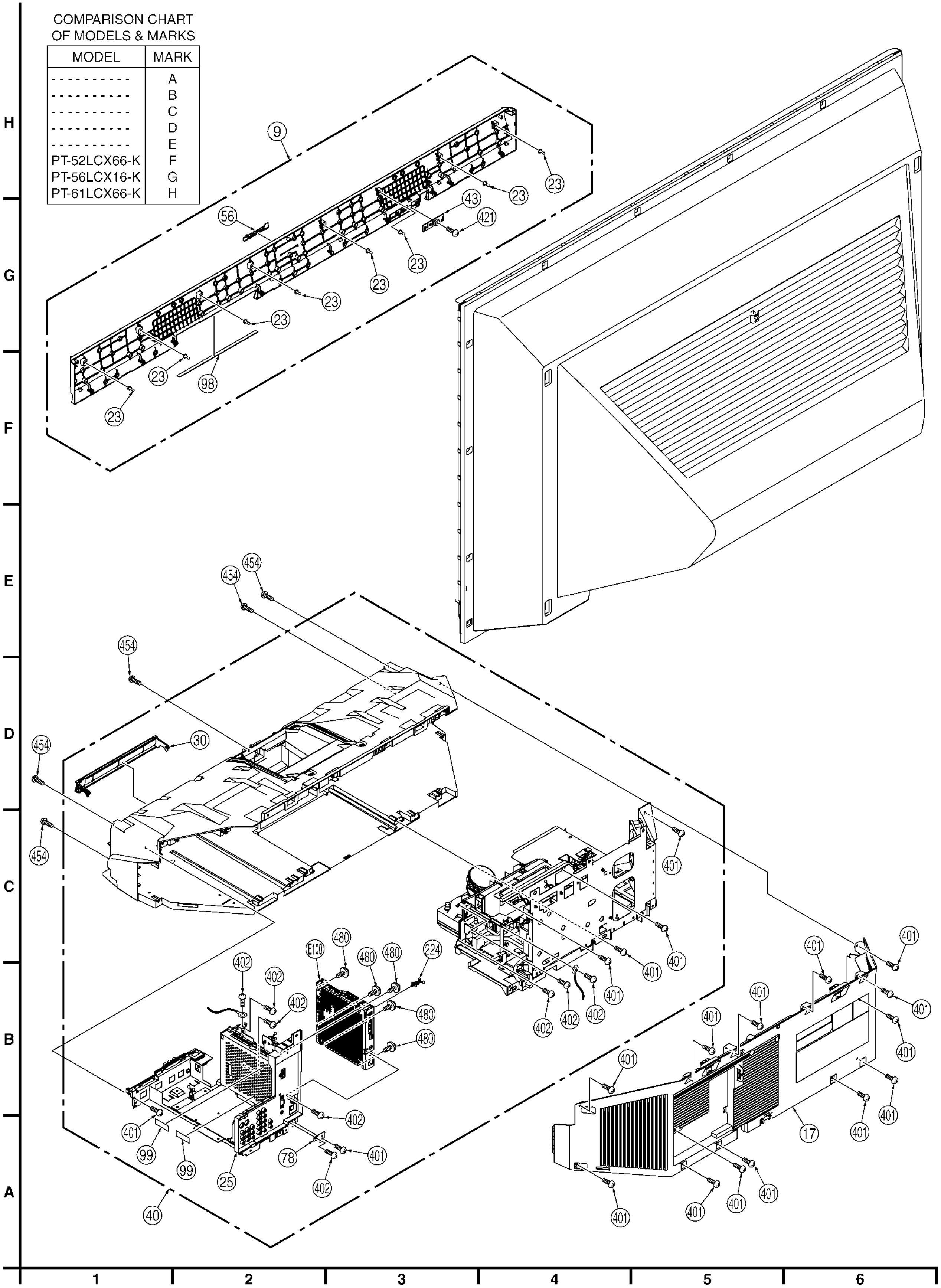
MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H


H
G
F
E
D
C
B
A
1
2
3
4
5
6
9
23
43
421
56
23
23
23
23
23
98
454
454
454
454
30
454
401
401
401
401
401
E100
480
480
480
224
480
480
402
402
402
402
402
402
401
401
401
401
401
401
401
401
401
99
99
25
78
402
401
402
40
17
401
401
401
401
401

❶ 56/61 INCH MAIN PARTS SECTION (Models: B, C, E, G, H)

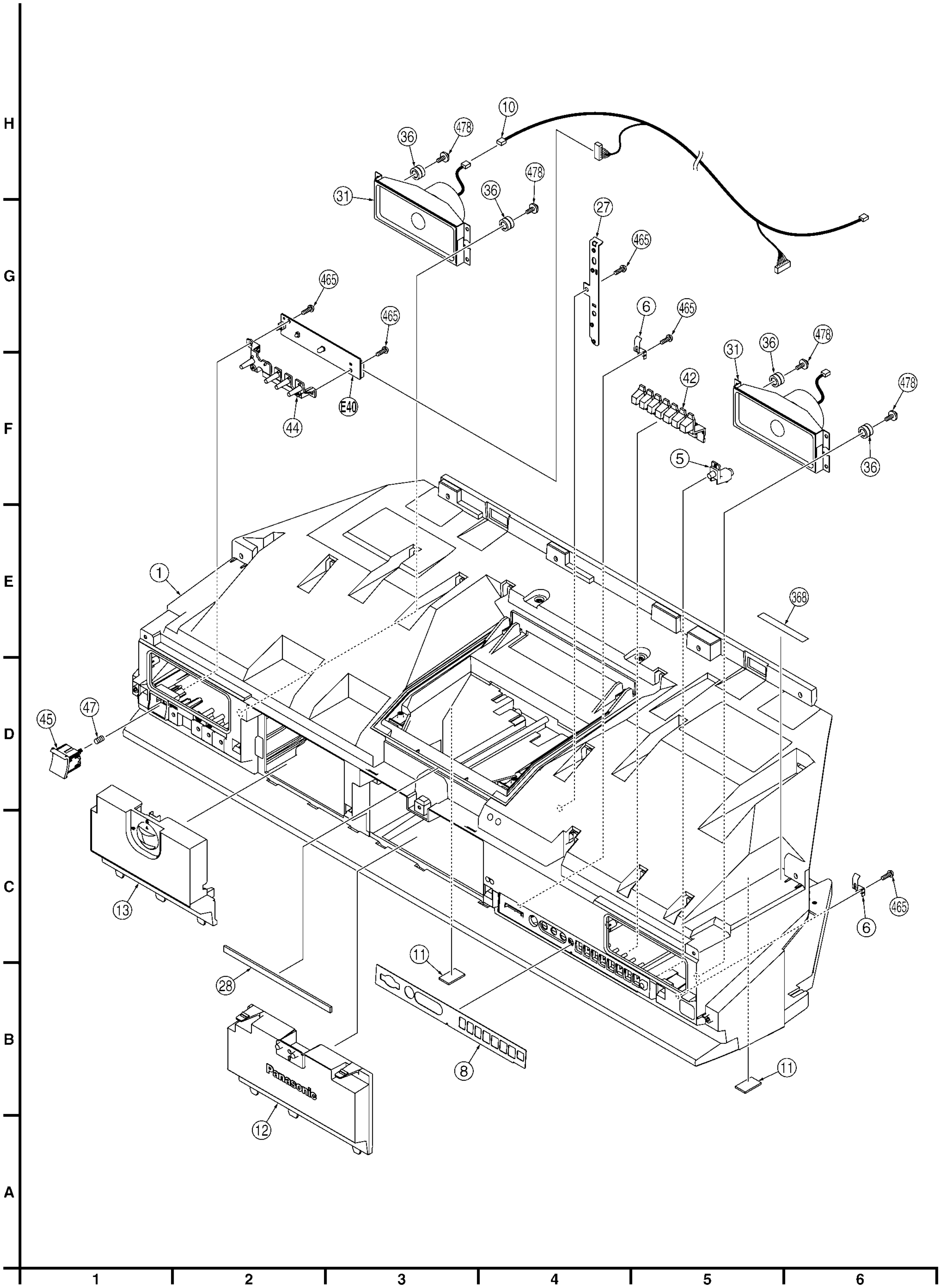
COMPARISON CHART
OF MODELS & MARKS

MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H


H
G
F
E
D
C
B
A
1
2
3
4
5
6
9
23
56
43
421
98
454
30
401
E100
480
224
402
99
25
78
40
17

16.2. BASE BODY SECTION

❷ BASE BODY SECTION

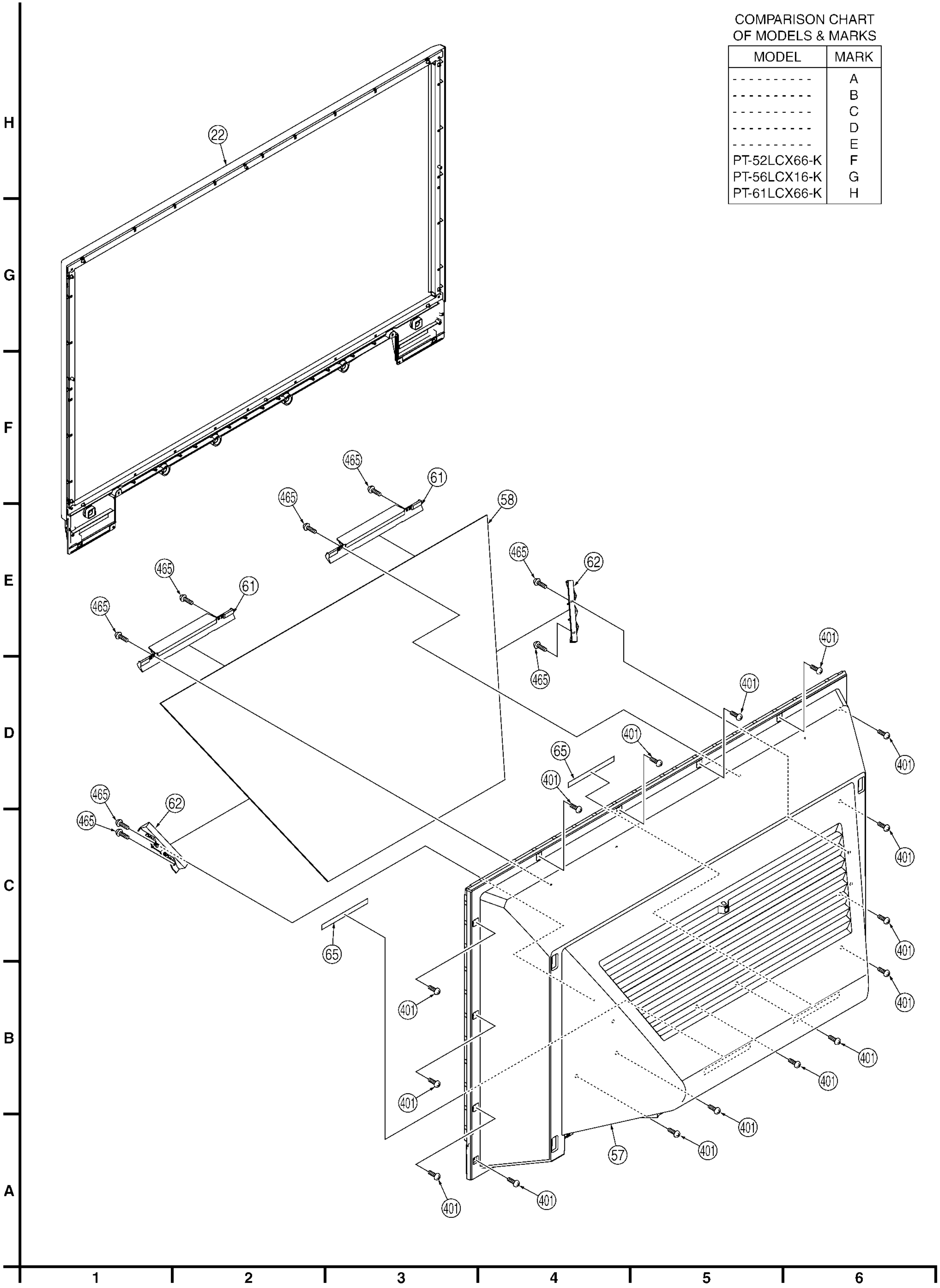

H
G
F
E
D
C
B
A
1
2
3
4
5
6
10
36
478
31
36
478
27
465
465
465
6
465
E40
44
31
36
478
42
478
36
5
1
368
45
47
13
6
465
11
28
8
12
Panasonic
11

16.3. DISPLAY SECTION

❸ 52 INCH DISPLAY SECTION (Models: A, D, F)

COMPARISON CHART
OF MODELS & MARKS

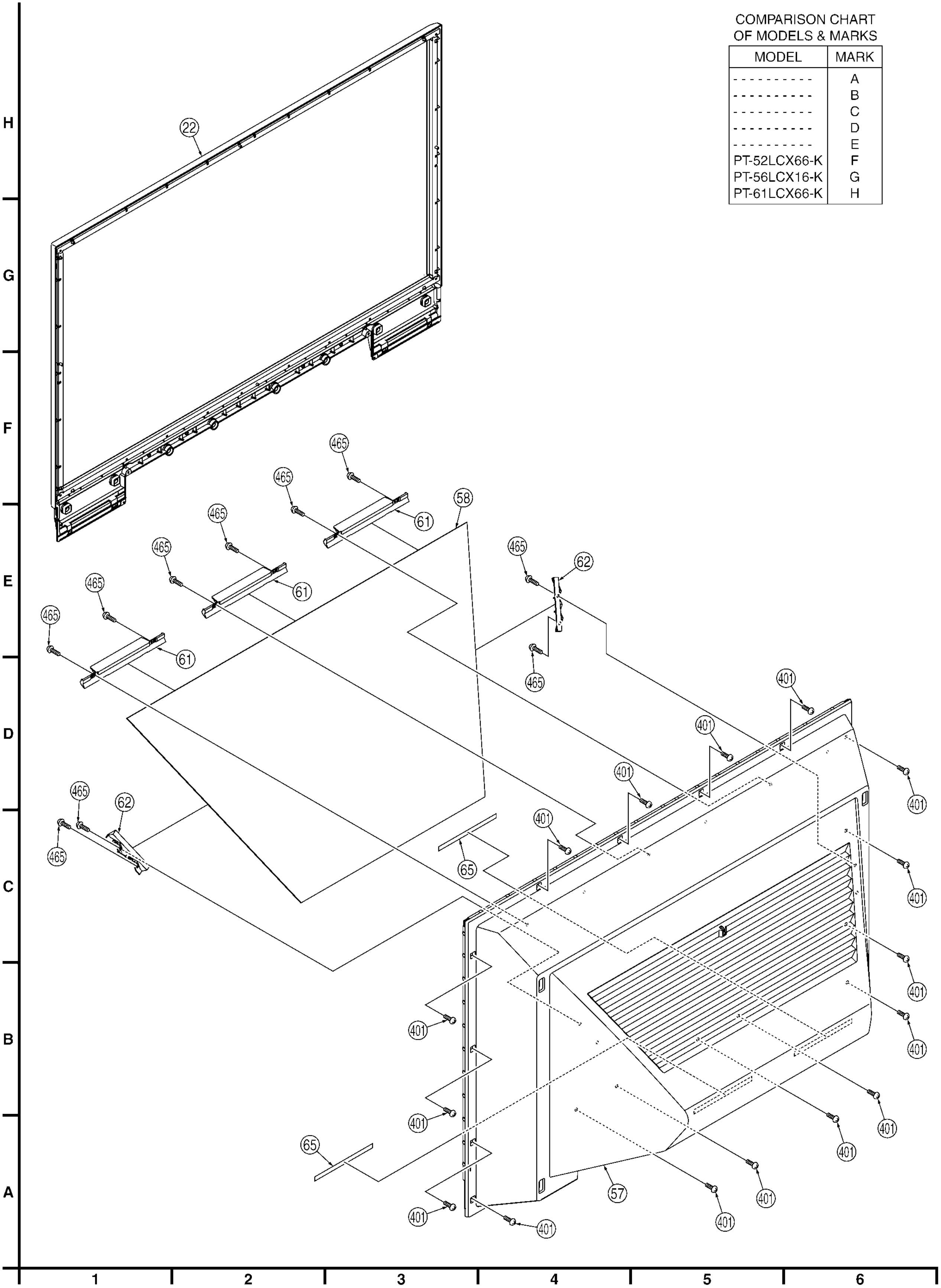
MODEL	MARK
----------	A
----------	B
----------	C
----------	D
----------	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H


H
G
F
E
D
C
B
A
1
2
3
4
5
6
22
465
61
465
58
465
62
465
61
465
465
401
401
401
401
65
401
465
62
465
401
401
65
401
401
401
401
401
401
401
401
401
57
401
401
401

❸ 56/61 INCH DISPLAY SECTION (Models: B, C, E, G, H)

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

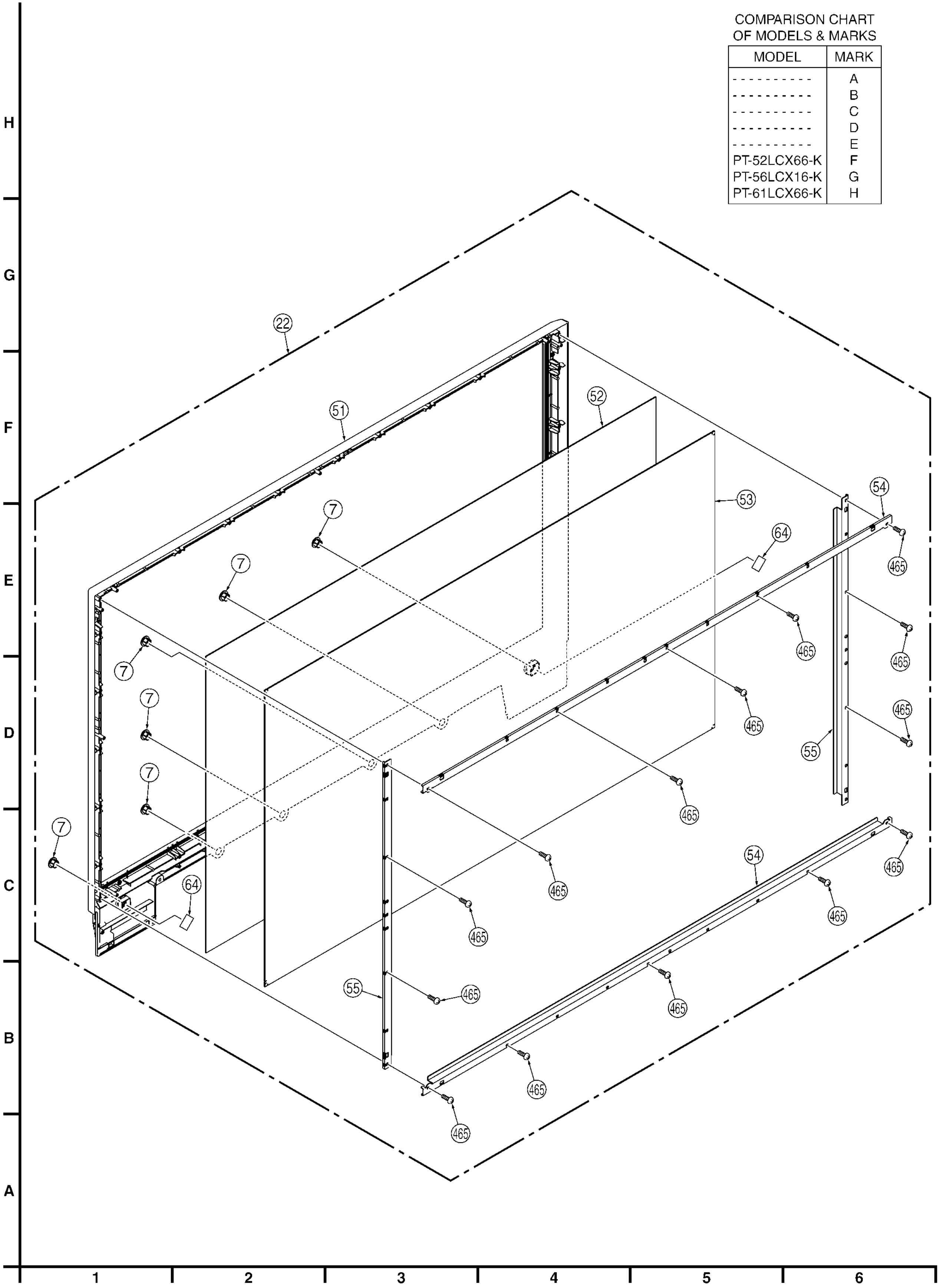

H
G
F
E
D
C
B
A
1
2
3
4
5
6
22
465
61
58
62
465
401
65
57

16.4. SCREEN SECTION

❹ 52 INCH SCREEN SECTION (Models: A, D, F)

COMPARISON CHART
OF MODELS & MARKS

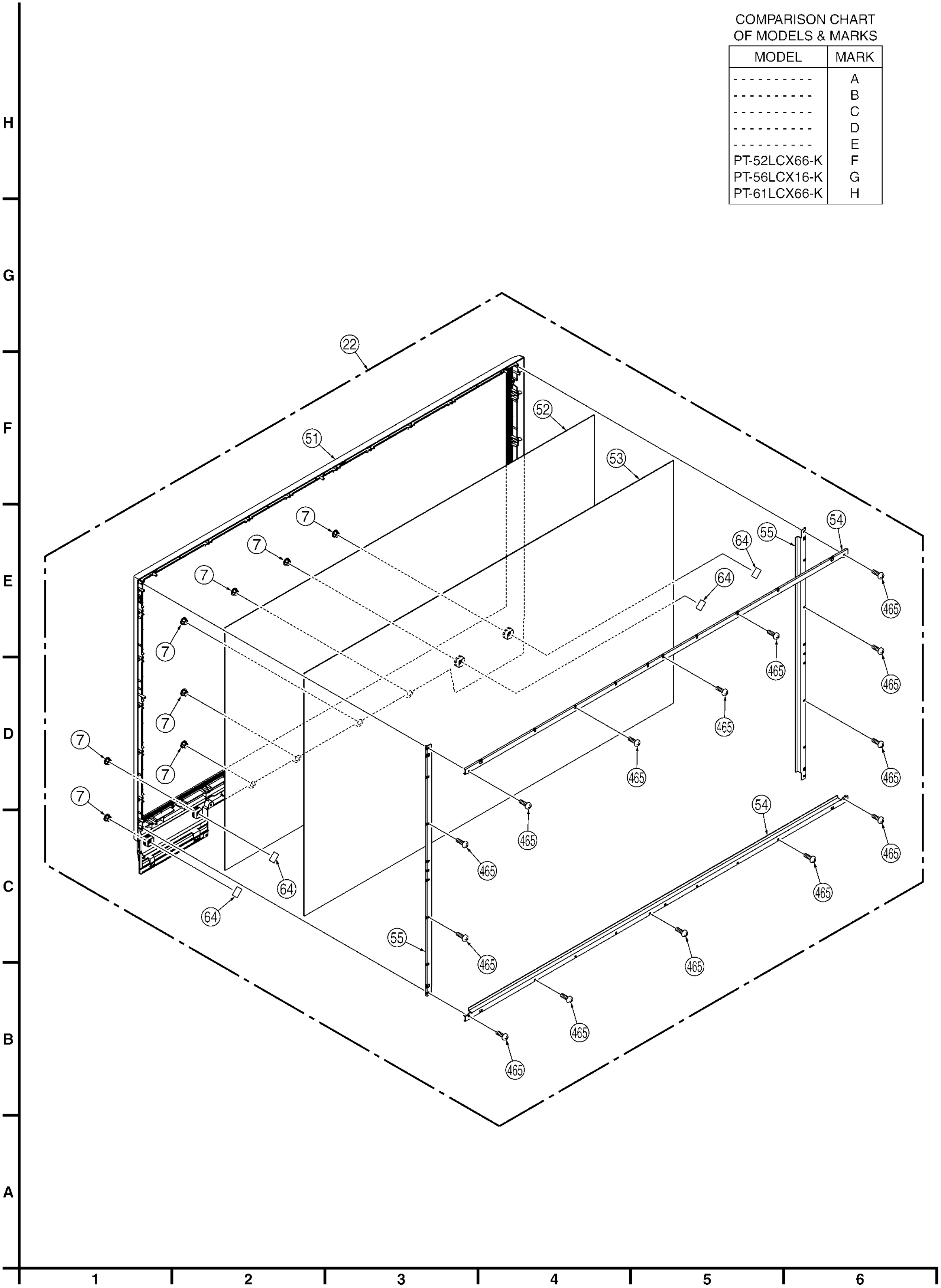
MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H


H
G
F
E
D
C
B
A
1
2
3
4
5
6
22
51
52
53
54
54
55
55
64
64
7
465

④ 56/61 INCH SCREEN SECTION
(Models: B, C, E, G, H)

COMPARISON CHART
OF MODELS & MARKS

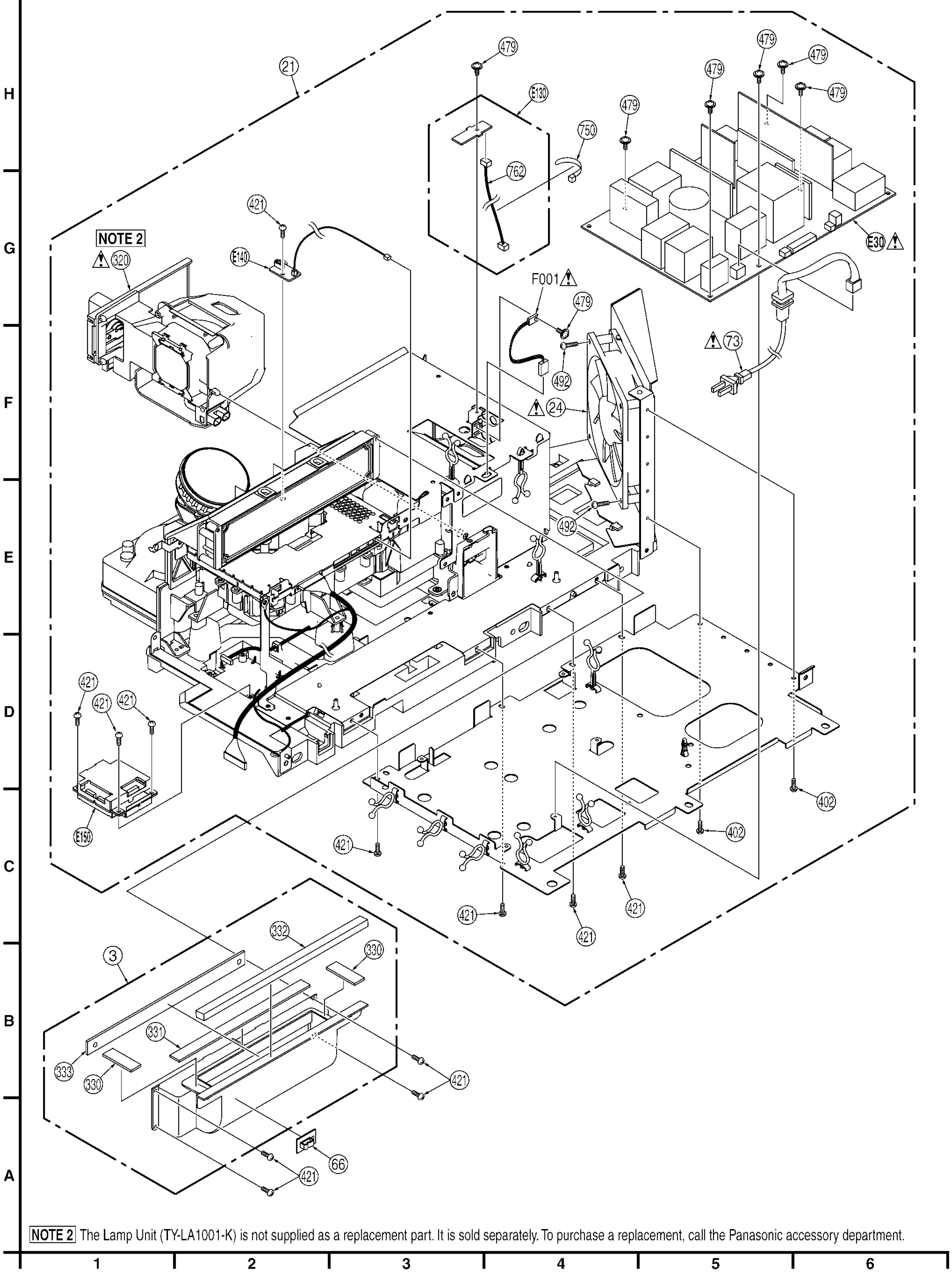
MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H


H
G
F
E
D
C
B
A
1
2
3
4
5
6
22
51
52
53
7
7
7
7
7
7
7
7
64
64
64
64
55
55
54
54
465
465
465
465
465
465
465
465
465
465
465
465
465
465
465
465

16.5. PROJECTION SECTION

❺ PROJECTION SECTION

IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.


H
G
F
E
D
C
B
A
21
479
E130
750
762
479
479
479
479
479
E30⚠
NOTE 2
⚠320
421
E140
F001⚠
479
492
⚠73
⚠24
492
421
421
421
E150
402
402
421
421
421
421
3
332
330
331
333
330
421
66
421
1
2
3
4
5
6

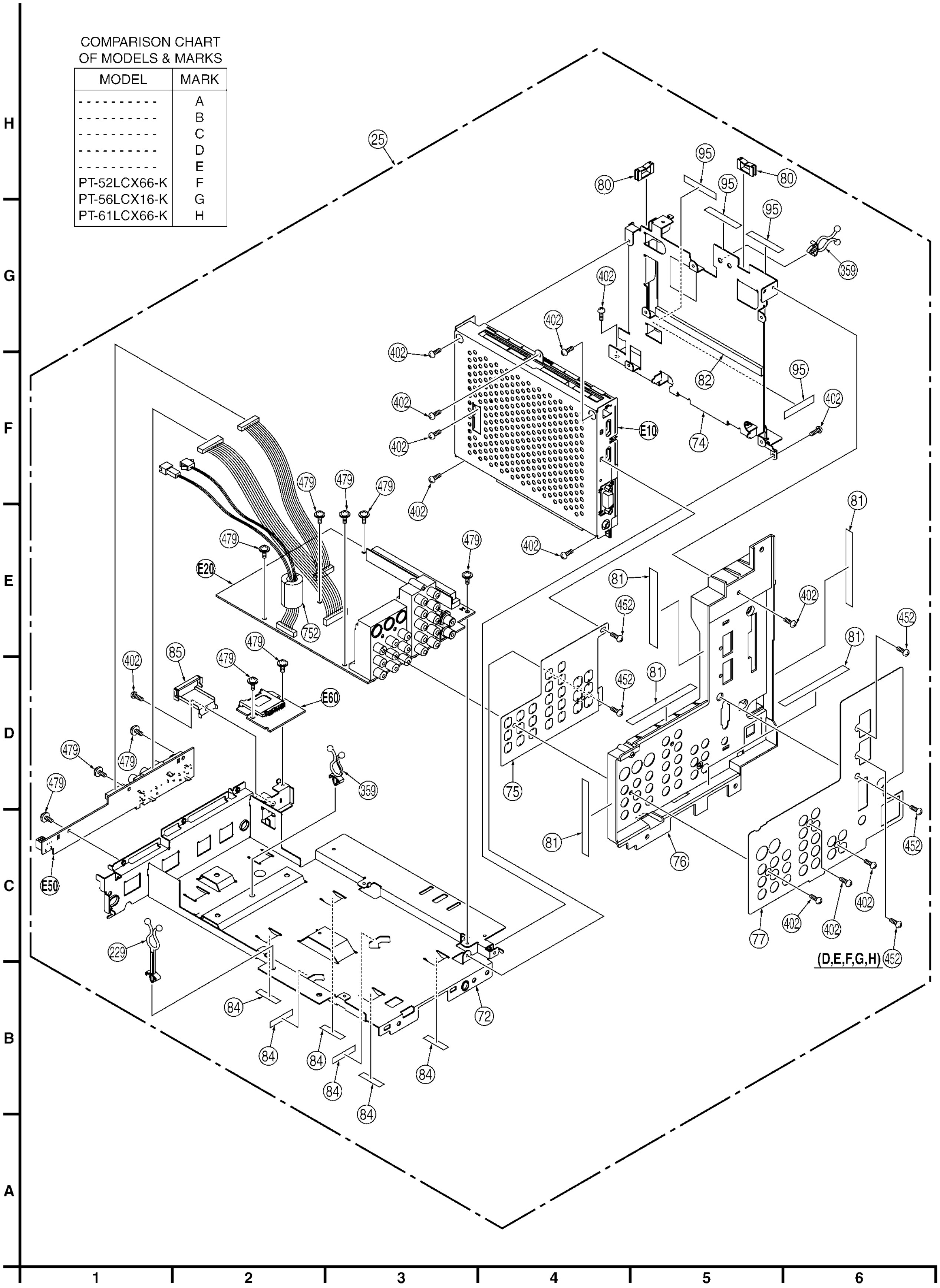
NOTE 2 The Lamp Unit (TY-LA1001-K) is not supplied as a replacement part. It is sold separately. To purchase a replacement, call the Panasonic accessory department.

16.6. TV UNIT SECTION (1)

❻ TV UNIT SECTION (1)

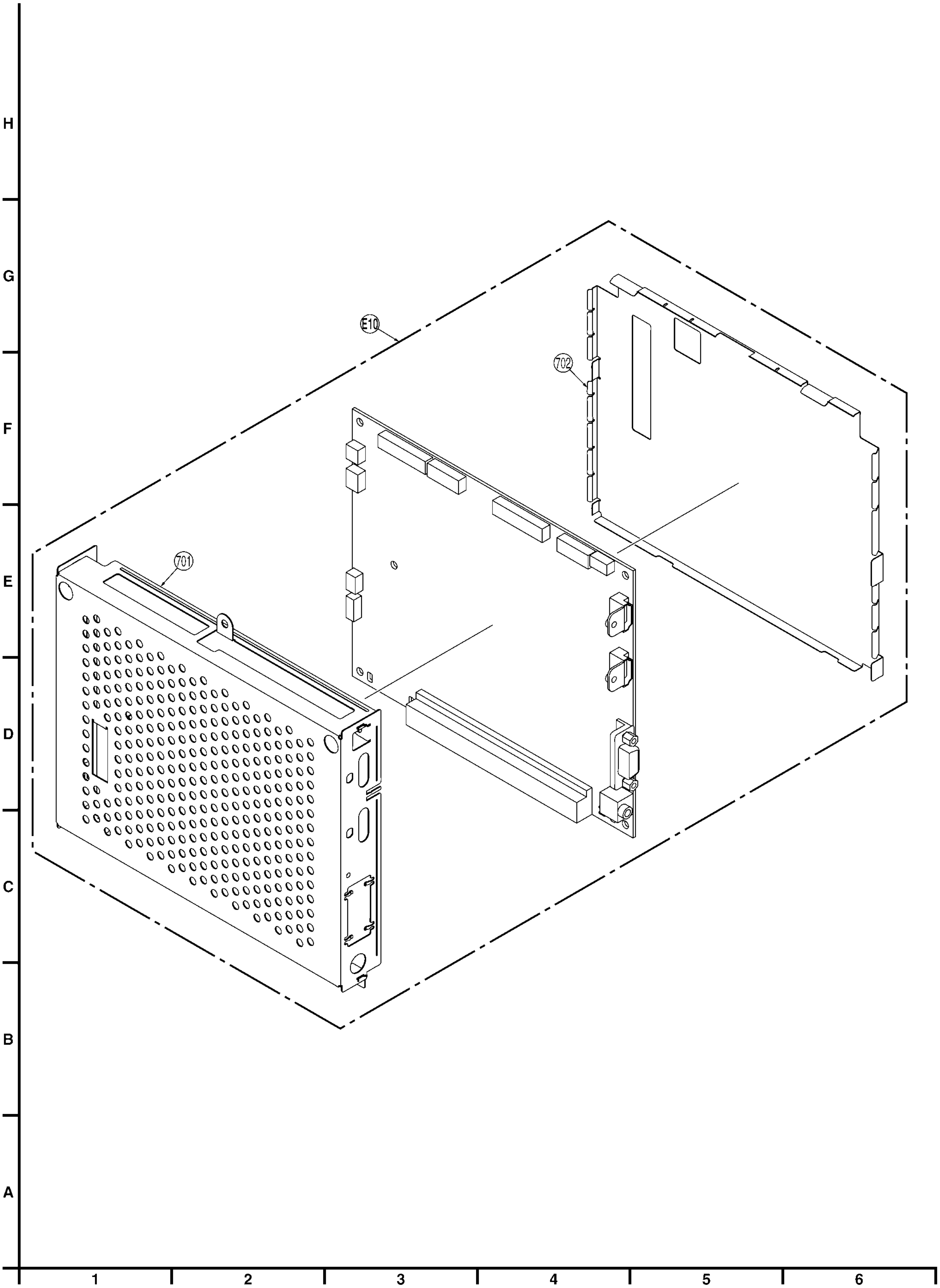
COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H


H
G
F
E
D
C
B
A
1
2
3
4
5
6
25
80
95
95
80
95
359
402
402
402
82
95
402
402
402
E10
74
402
402
479
479
479
479
E20
752
479
81
402
81
452
452
402
85
479
479
E60
452
81
81
479
479
479
E50
75
359
81
76
452
402
402
402
229
77
402
(D,E,F,G,H)
452
84
72
84
84
84
84
84

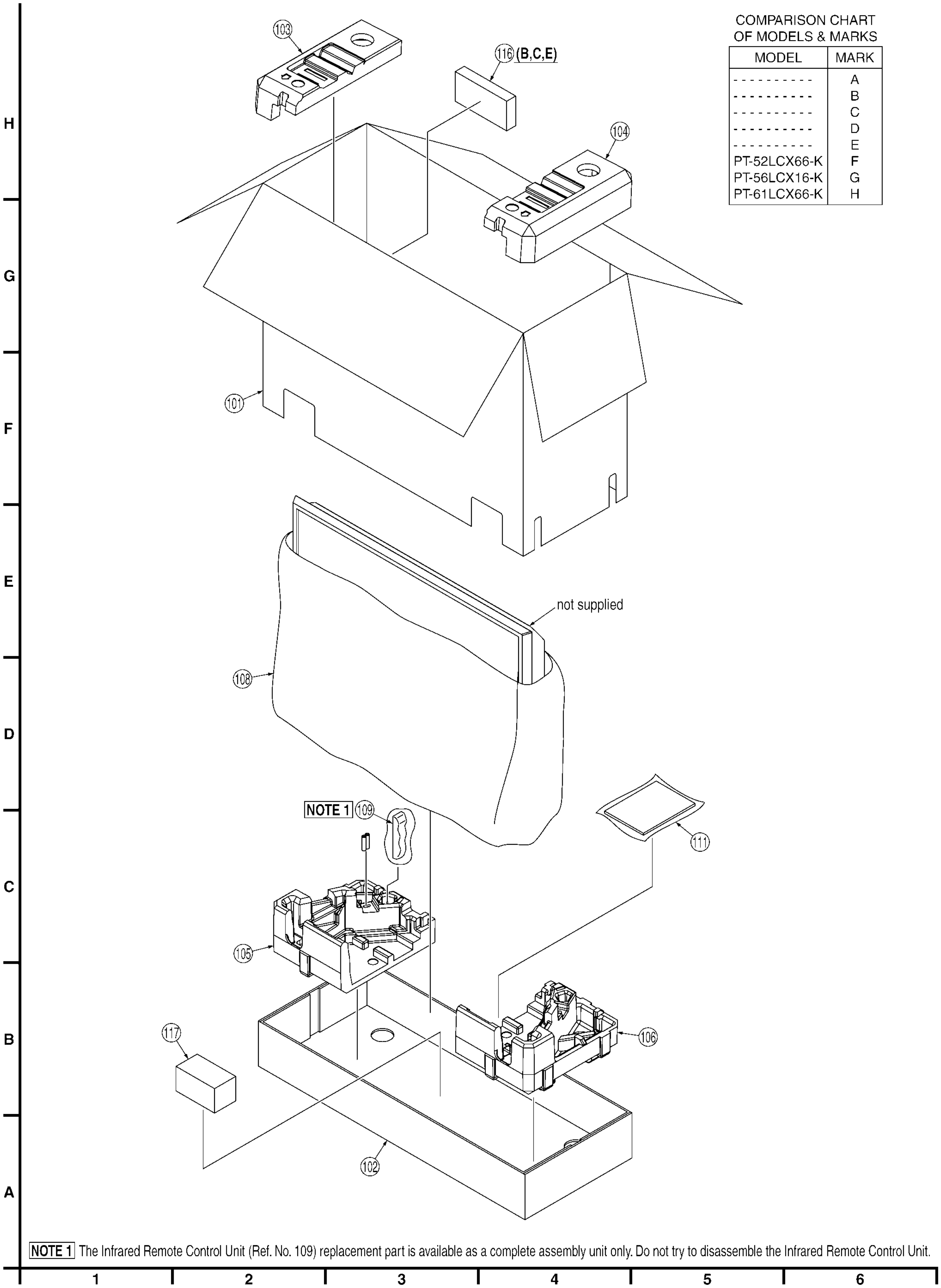
16.7. TV UNIT SECTION (2)

❼ TV UNIT SECTION (2)


H
G
F
E
D
C
B
A
1
2
3
4
5
6
E10
702
701

16.8. PACKING PARTS AND ACCESSORIES SECTION

❽ PACKING PARTS AND ACCESSORIES SECTION


103
116 (B,C,E)
104
101
not supplied
108
NOTE 1
109
111
105
117
106
102
H
G
F
E
D
C
B
A
1
2
3
4
5
6

COMPARISON CHART
OF MODELS & MARKS

MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	**F**
PT-56LCX16-K	G
PT-61LCX66-K	H

NOTE 1 The Infrared Remote Control Unit (Ref. No. 109) replacement part is available as a complete assembly unit only. Do not try to disassemble the Infrared Remote Control Unit.

17 Replacement Parts List (Cabinet Section)

BEFORE REPLACING PARTS, READ THE FOLLOWING:

17.1. REPLACEMENT NOTES

17.1.1. General Notes

1. Use only original replacement parts:

   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.

2. **IMPORTANT SAFETY NOTICE**

   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.

3. SPECIAL NOTE

   All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.

4. Parts with no Ref. No. in "EXPLODED VIEWS" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.
6. Definition of Parts supplier:
   1. Parts with mark "PSEC" in the Remarks column are supplied from PSEC.
   2. Parts without mark in the Remarks column are supplied from PASC-NPC.
7. Item numbers with capital letter E (Example: E10, E20,...) in the Ref. No. column are shown in the exploded views.
8. Parts whose Ref. Nos. are the same are interchangeable as replacement parts. Any of these parts may be ordered and used as a replacement part.

17.1.2. Mechanical Replacement Notes

1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.
2. Abbreviation

   RTL: Retention Time Limited

   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.

3. After replacing the Projection Unit (Ref. No. 21) or the Base Body Unit (Ref. No. 40), be sure to perform "ADJUSTMENT of the Projection Unit." Refer to "WHEN REINSTALLING THE PROJECTION UNIT OR BASE BODY UNIT INTO THE UNIT AT THE USER´S LOCATION"; in Adjustment Procedures 1.
4. The Infrared Remote Control Unit (Ref. No. 109) replacement part is available as a complete assembly unit only. Do not try to disassemble the Infrared Remote Control Unit.

17.1.3. Electrical Replacement Notes

1. Unless otherwise specified;

   All resistors are in Ω, K = 1,000 Ω, M = 1,000 kΩ.

2. Abbreviation

RTL:	Retention Time Limited This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
NR:	Non Repairable Board Ass´y
MGF CHIP:	Metal Glaze Film Chip
C CHIP:	Ceramic Chip
COMPLX CMP:	Complex Component
W FLMPRF:	Wirewound Flameproof
C.B.A.:	Circuit Board Assembly
P.C.B.:	Printed Circuit Board
E.S.D.:	Electrostatically Sensitive Devices

3. When replacing 0 Ω resistor, a wire can be substituted for it.
4. Parts with mark "CSP" in the Remarks column are CSP (Chip Size Package) IC.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

17.2. MECHANICAL REPLACEMENT PARTS LIST

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
----------	A
----------	B
----------	C
----------	D
----------	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

Definition of Parts supplier:

1. **Parts with mark "PSEC" in the Remarks column are supplied from PSEC.**
2. **Parts without mark in the Remarks column are supplied from PASC-NPC.**

MECHANICAL REPLACEMENT PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
1	LSKU0041	BASE BODY	2
3	LSXA0683	TOP DUCT 3 UNIT	5
5	LSGL0499	IRFRARED PIECE	2
6	LSMC0151	PANEL SPRING	2
7	LSKC0008	LATCH	4
8	LSGH0069	FRONT JACK SHEET	2
9	LSYF0593	FRONT COVER UNIT (A,D,F)	1
9	LSYF0594	FRONT COVER UNIT (B,E,G)	1
9	LSYF0595	FRONT COVER UNIT (C,H)	1
10	LSJA0605	CONNECTOR CABLE W/PLUG	2
11	LSKA0031	RUBBER FOOT	2
12	LSYF0605	OPTICAL COVER UNIT	2
13	LSYK1831	LAMP COVER UNIT	2
17	LSYF0606	REAR COVER UNIT	1
21	LSXA0771-HB	PROJECTION UNIT (A,B,D,E,F,G)	5 RTL PSEC
21	LSXA0827-HB	PROJECTION UNIT (C,H)	5 RTL PSEC
22	LSYK1823	SCREEN UNIT (A,F)	3,4
22	LSYK1888	SCREEN UNIT (B) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	3,4
or 22	LSYK1871	SCREEN UNIT (B) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	3,4
22	LSYK1825	SCREEN UNIT (C,H)	3,4
22	LSYK1874	SCREEN UNIT (D)	3,4
22	LSYK1889	SCREEN UNIT (E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	3,4
or 22	LSYK1872	SCREEN UNIT (E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	3,4
23	TMM14414	STRIKE	1
24	L6FAYYYH0015	FAN 3	5 ⚠
25	LSXY0994	TV UNIT (A,B,C)	1,6 RTL
25	LSXY1035	TV UNIT (D,E,F,G,H)	1,6 RTL
27	LSSC0867	CONNECTING PLATE F,STEEL	2
28	LSMG0171	SPACER	2
30	LSYF0599	FRONT DOOR UNIT	1
31	EAS15S19A	LOUDSPEAKER	2
36	LSMG0169	RUBBER WASHER	2
40	LSVE0017	BASE BODY UNIT (A,B)	1 RTL
40	LSVE0020	BASE BODY UNIT (C)	1 RTL
40	LSVE0018	BASE BODY UNIT (D,E,F,G)	1 RTL
40	LSVE0021	BASE BODY UNIT (H)	1 RTL
42	LSGU0724	OPERATION BUTTON	2
43	LSGL0447	FRONT LED PIECE	1
44	LSGL0500	POWER LED PIECE	2
45	LSGU0725	POWER BUTTON	2
47	LSMB0321	POWER BUTTON SPRING	2
51	LSGY0313	ESCUTCHEON (A,F)	4
51	LSYK1880	ESCUTCHEON UNIT (B)	4
51	LSYK1875	ESCUTCHEON UNIT (C,H)	4
51	LSGY0326	ESCUTCHEON (D)	4
51	LSYK1881	ESCUTCHEON UNIT (E,G)	4
52	LSGP0528	LENTICULAR SCREEN (A,D,F)	4
52	LSGP0548	LENTICULAR SCREEN (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
or 52	LSGP0502	LENTICULAR SCREEN (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
52	LSGP0532	LENTICULAR SCREEN (C,H)	4
53	LSGP0527	FRESNEL LENS (A,D,F)	4
53	LSGP0547	FRESNEL LENS (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
or 53	LSGP0501	FRESNEL LENS (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
53	LSGP0531	FRESNEL LENS (C,H)	4
54	LSXA0733	SCREEN ANGLE H UNIT (A,D,F)	4
54	LSXA0830	SCREEN ANGLE H UNIT (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
or 54	LSXA0825	SCREEN ANGLE H UNIT (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
54	LSXA0736	SCREEN ANGLE H UNIT (C,H)	4
55	LSXA0734	SCREEN ANGLE V UNIT (A,D,F)	4
55	LSXA0831	SCREEN ANGLE V UNIT (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
or 55	LSXA0826	SCREEN ANGLE V UNIT (B,E,G) *Refer to “Replacement Note for 56 inch Screen Unit” in Disassembly and Assembly Instructions.	4
55	LSXA0738	SCREEN ANGLE V UNIT (C,H)	4
56	LSGB0056	PANASONIC BADGE	1
57	LSGV0129	BACK COVER (A,D,F)	3
57	LSGV0130	BACK COVER (B,E,G)	3
57	LSGV0131	BACK COVER (C,H)	3
58	LSDL0310	MIRROR (A,D,F)	3
58	LSDL0311	MIRROR (B,E,G)	3
58	LSDL0312	MIRROR (C,H)	3
61	LSYF0602	MIRROR HOLDER H UNIT	3
62	LSYF0603	MIRROR HOLDER V UNIT	3
64	LSMF0505	SPACER	4
65	LSMF0499	SPACER (A,B,D,E,F,G)	3
65	LSMF0500	SPACER (C,H)	3
66	LSGP0372	CLAMPER	5
72	LSMA0923	BASE P.C.B. MOUNT METAL	6
73	LSJA0531	AC CORD W/PLUG	5 ⚠ PSEC

Ref. No.	Part No.	Part Name & Description	Remarks
74	LSMA0924	MAIN P.C.B. MOUNT METAL	6
75	LSSC0877	REAR JACK GROUNDING PLATE,STEEL	6
76	LSJH0093	REAR JACK HOLDER	6
77	LSGH0070	REAR JACK SHEET (A,B,C)	6
77	LSGH0077	REAR JACK SHEET (D,E,F,G,H)	6
78	LSMC0150	CONNECTING PLATE R,STEEL	1
80	TMME075	EDGE SADDLE	6
81	LSGH0071	REAR JACK CUSHION	6
82	LSMF0524	CUSHION	6
84	LSGH0076	SHEET	6
85	LSSC0866	SD SHIELD CASE,STEEL	6
95	VMFS0116	SHEET	6
98	LSMF0509	DOOR SPACER	1
99	LSMF0469	SHEET	1
101	LSPG2209	CARTON BOX (A,F)	8
101	LSPG2210	CARTON BOX (B)	8
101	LSPG2211	CARTON BOX (C,H)	8
101	LSPG2290	CARTON BOX (D)	8
101	LSPG2291	CARTON BOX (E)	8
101	LSPG2266	CARTON BOX (G)	8
102	LSPG2212	CARTON BOX BOTTOM (A,D,F)	8
102	LSPG2213	CARTON BOX BOTTOM (B,E,G)	8
102	LSPG2214	CARTON BOX BOTTOM (C,H)	8
103	LSPN0703	CUSHION TOP-LEFT,STYROFORM (A,D,F)	8
103	LSPN0704	CUSHION TOP-LEFT,STYROFORM (B,E,G)	8
103	LSPN0705	CUSHION TOP-LEFT,STYROFORM (C,H)	8
104	LSPN0706	CUSHION TOP-RIGHT,STYROFORM (A,D,F)	8
104	LSPN0707	CUSHION TOP-RIGHT,STYROFORM (B,E,G)	8
104	LSPN0708	CUSHION TOP-RIGHT,STYROFORM (C,H)	8
105	LSPN0709	CUSHION BOTTOM-LEFT,STYROFORM (A,D,F)	8
105	LSPN0710	CUSHION BOTTOM-LEFT,STYROFORM (B,E,G)	8
105	LSPN0711	CUSHION BOTTOM-LEFT,STYROFORM (C,H)	8
106	LSPN0712	CUSHION BOTTOM-RIGHT,STYROFORM (A,D,F)	8
106	LSPN0713	CUSHION BOTTOM-RIGHT,STYROFORM (B,E,G)	8
106	LSPN0714	CUSHION BOTTOM-RIGHT,STYROFORM (C,H)	8
108	LSPF0111	BAG,POLYETHYLENE	8
109	EUR7613ZH0	INFRARED REMOTE CONTROL UNIT	8
111	LSQF1060	FAN BAG (A,B,C,E,F,G,H)	8
111	LSQF1060DE	FAN BAG (D)	8
116	LSPN0728	CUSHION CENTER,STYROFORM (B,C,E)	8
117	LSPN0729	CUSHION CENTER BOTTOM,STYROFORM	8
224	TMME047	CLAMPER	1
229	TMM16452	CLAMPER	6
330	LSMF0269	TOP DUCT 3 SPONGE 1	5
331	LSMF0270	TOP DUCT 3 SPONGE 2	5
332	LSMF0271	TOP DUCT 3 SPONGE 3	5
333	LSMF0272	TOP DUCT 3 SPONGE 4	5
359	LSGQ0176	CLAMPER	6
368	LSMF0435	SHEET	2
401	XTV4+16AFJ	TAPPING SCREW,STEEL	1,3
402	XTV3+8JFJ	TAPPING SCREW,STEEL	1,5,6
421	XTV3+8GFJ	TAPPING SCREW,STEEL	1,5
452	XTV3+8FFJ	TAPPING SCREW,STEEL	6
454	XTV4+16AFJK	TAPPING SCREW,STEEL	1
465	XTV4+12AFJ	TAPPING SCREW,STEEL	2,3,4
478	LSHD0099-FJ	SCREW W/WASHER,STEEL	2
479	XYE3+FJ8FJ	SCREW W/WASHER,STEEL	5,6
480	XTW3+8TFJ	TAPPING SCREW,STEEL	1
492	XTV3+30JFJ	TAPPING SCREW,STEEL	5
701	LSSC0878	MAIN SHIELD CASE TOP	7
702	LSSC0865	MAIN SHIELD CASE BOTTOM	7
750	VZFS0006	CLAMPER	5
752	LSLQ0307	FERRITE CORE	6
762	LSJA0533	CONNECTOR CABLE W/PLUG	5 PSEC
E10	LSXA0774	MAIN P.C.B. (A,B,C)	6,7 E.S.D. RTL
E10	LSXA0790	MAIN P.C.B. (D,E,F,G,H)	6,7 E.S.D. RTL
E20	LSEP3197A	BASE P.C.B. (A,B,C)	6 E.S.D. RTL
E20	LSEP3197C	BASE P.C.B. (D,E,F,G,H)	6 E.S.D. RTL
E30	LSEP1206A1	POWER P.C.B.	5 ⚠ E.S.D. RTL PSEC
E40	LSEP3201A	POWER SWITCH P.C.B.	2 RTL
E50	LSEP3200A	FRONT JACK/OPERATION P.C.B.	6 RTL
E60	LSEP3199A	SD CARD P.C.B.	6 RTL
E100	LSEP3207F	DIGITAL TUNER P.C.B.	1 RTL
E130	LSEP3137B	THERMISTOR 2 P.C.B.	5 RTL PSEC
E140	LSEP3160A	COVER SWITCH P.C.B.	5 RTL PSEC
E150	LSXA0773	IRIS P.C.B.	5 RTL PSEC

17.3. OPTIONAL ACCESSORY REPLACEMENT PARTS LIST

17.3.1. LAMP UNIT

Ref. No.2	Part No.	Part Name & Description	Remarks
320	TY-LA1001-K	LAMP UNIT	5 ⚠ NOTE

NOTE:

The Lamp Unit (TY-LA1001-K) is not supplied as a replacement part. It is sold separately. To purchase a replacement, call the Panasonic accessory department.

17.4. SERVICE FIXTURES AND TOOLS REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. **All parts are supplied from PSEC.**

SERVICE FIXTURES AND TOOLS

Ref. No.	Part No.	Part Name & Description	Remarks
	LSEP3112A	RELAY P.C.B.	PSEC
	LSUA0042	LCD PANEL FLAT EXTENSION CABLE	PSEC
	LSUA0038	POWER EXTENSION CABLE	PSEC
	LSUA0039	FAN1,3 EXTENSION CABLE	PSEC
	LSUA0040	FAN2 EXTENSION CABLE	PSEC
	LSEP3216A	MONITOR P.C.B.	PSEC
	LSUA0041	COVER SWITCH DEFEAT CABLE	PSEC
	LSUA0013	THERMISTOR 2 DEFEAT CABLE	PSEC
	LSUA0043	RS232C I/F TOOL	PSEC

17.5. ELECTRICAL REPLACEMENT PARTS LIST

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
----------	A
----------	B
----------	C
----------	D
----------	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

Definition of Parts supplier:

1. **Parts with mark "PSEC" in the Remarks column are supplied from PSEC.**
2. **Parts without mark in the Remarks column are supplied from PASC-NPC.**

PRINTED CIRCUIT BOARD ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Remarks
E10	LSXA0774	MAIN P.C.B. (A,B,C)	E.S.D. RTL
E10	LSXA0790	MAIN P.C.B. (D,E,F,G,H)	E.S.D. RTL
E20	LSEP3197A	BASE P.C.B. (A,B,C)	E.S.D. RTL
E20	LSEP3197C	BASE P.C.B. (D,E,F,G,H)	E.S.D. RTL
E30	LSEP1206A1	POWER P.C.B.	⚠ E.S.D. RTL PSEC
E40	LSEP3201A	POWER SWITCH P.C.B.	RTL
E50	LSEP3200A	FRONT JACK/OPERATION P.C.B.	RTL
E60	LSEP3199A	SD CARD P.C.B.	RTL
E100	LSEP3207F	DIGITAL TUNER P.C.B.	E.S.D. RTL
E130	LSEP3137B	THERMISTOR 2 P.C.B.	RTL PSEC
E140	LSEP3160A	COVER SWITCH P.C.B.	RTL PSEC
E150	LSXA0773	IRIS P.C.B.	RTL PSEC

17.5.1. MAIN P.C.B.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
----------	A
----------	B
----------	C
----------	D
----------	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC1100	C0DBAZH00013	IC, LINEAR	
IC1102	C0DBAZG00034	IC, LINEAR	
IC1103	C0DBAZG00034	IC, LINEAR	
IC1104	C0CBCDD00004	IC, LINEAR	
IC1105	C0CBCBD00008	IC, LINEAR	
IC5000	C1AB00002456	IC, LINEAR	
IC5001	C1AB00002234	IC, LINEAR	CSP
IC5002	C3ABQY000008	IC, D RAM	E.S.D. CSP
IC5003	C0DBEJG00001	IC, LINEAR	
IC5004	C0CBCAC00136	IC, LINEAR	
IC5005	C0CBCAC00275	IC, LINEAR	
IC5006	C0CBCBF00009	IC, LINEAR	
IC5007	C0CBCAC00275	IC, LINEAR	
IC5008	C0JBAB000619	IC, LOGIC	E.S.D.
IC5009	C0DBZFG00055	IC, LINEAR	
IC5010	C0CBCAC00136	IC, LINEAR	
IC5011	C1ZBZ0002790	IC, CMOS STANDARD LOGIC	E.S.D.
IC5012	C0ZBZ0000901	IC, LINEAR	
IC5022	C0JBAZ002102	IC, LOGIC	E.S.D.
IC5700	C0JBCZ000523	IC, LOGIC	E.S.D.
IC5701	C0CBCBD00008	IC, LINEAR	
IC5800	C0FBBK000047	IC, LINEAR	
IC5801	C1AB00002535	IC, LINEAR	
IC5802	LSSK0092	IC, EEP ROM	E.S.D.
IC5803	LSSK0093	IC, EEP ROM (D,E,F,G,H)	E.S.D.
IC5804	C0ABBB000256	IC, LINEAR	
IC5805	C0DBAFF00019	IC, LINEAR	
IC6000	C3EBKC000008	IC, 128K EEP ROM	E.S.D.
IC6001	MN102H90MTZ1	IC, 16BIT MICROCONTROLLER	E.S.D.
IC6002	C0EBE0000436	IC, LINEAR	
IC6003	LSSK0095	IC, FLASH MEMORY	E.S.D.
IC6005	C0EBC0000208	IC, LINEAR	
IC6006	C0JBAA000455	IC, LOGIC	E.S.D.
IC6007	C0JBAA000455	IC, LOGIC	E.S.D.
IC6012	C0JBAA000455	IC, LOGIC	E.S.D.

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q1100	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q1100	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q1102	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q1102	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q1103	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q1103	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q1104	B1DHED000008	IC, LINEAR	
Q1105	B1DHED000008	IC, LINEAR	
Q1106	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q1106	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q1107	2SB1218A0L	TRANSISTOR SI PNP CHIP	
or Q1107	B1ADCF000063	TRANSISTOR SI PNP CHIP	
or Q1107	B1ADCF000075	TRANSISTOR SI PNP CHIP	
Q1108	2SB1218ASL	TRANSISTOR SI PNP CHIP	
Q1109	2SB1218ASL	TRANSISTOR SI PNP CHIP	
Q5000	2SD0601AQL	TRANSISTOR SI NPN CHIP	
Q5002	2SA207700L	TRANSISTOR SI PNP CHIP	
Q5004	2SA207700L	TRANSISTOR SI PNP CHIP	
Q5008	2SD0601AQL	TRANSISTOR SI NPN CHIP	
Q5009	2SD0601AQL	TRANSISTOR SI NPN CHIP	
Q5010	2SD0601AQL	TRANSISTOR SI NPN CHIP	
Q5021	2SB1218A0L	TRANSISTOR SI PNP CHIP	
or Q5021	B1ADCF000063	TRANSISTOR SI PNP CHIP	
or Q5021	B1ADCF000075	TRANSISTOR SI PNP CHIP	
Q5802	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5802	B1ABCF000020	TRANSISTOR SI NPN CHIP	

Ref. No.	Part No.	Part Name & Description	Remarks
Q5804	2SD1819A0L	TRANSISTOR SI NPN CHIP (D,E,F,G,H)	
or Q5804	B1ABCF000020	TRANSISTOR SI NPN CHIP (D,E,F,G,H)	
Q5807	UNR521400L	TRANSISTOR SI NPN CHIP	
or Q5807	B1GBCFJN0009	TRANSISTOR SI NPN CHIP	
Q5818	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5818	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5819	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5819	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5820	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5820	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5821	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5821	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5823	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5823	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5827	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5827	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5828	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5828	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q5829	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q5829	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6000	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6000	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6001	2SB1218AHL	TRANSISTOR SI PNP CHIP	
or Q6001	B1ADCF000063	TRANSISTOR SI PNP CHIP	
Q6002	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6002	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6003	2SA207700L	TRANSISTOR SI PNP CHIP	
Q6004	2SD0601ASL	TRANSISTOR SI NPN CHIP	
Q6005	2SD0601ASL	TRANSISTOR SI NPN CHIP	
Q6007	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6007	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6008	2SB1218AHL	TRANSISTOR SI PNP CHIP	
or Q6008	B1ADCF000063	TRANSISTOR SI PNP CHIP	
Q6009	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6009	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6010	2SD1819AHL	TRANSISTOR SI NPN CHIP	
Q6011	2SB1218AHL	TRANSISTOR SI PNP CHIP	
or Q6011	B1ADCF000063	TRANSISTOR SI PNP CHIP	
Q6012	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6012	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6014	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6014	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6015	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6015	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6016	2SB1218AHL	TRANSISTOR SI PNP CHIP	
or Q6016	B1ADCF000063	TRANSISTOR SI PNP CHIP	
Q6017	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6017	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6027	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6027	B1ABCF000020	TRANSISTOR SI NPN CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D1100	MA2J11300L	DIODE SI CHIP	
D1101	B0JCPD000026	DIODE SI CHIP	
D1102	B0JCPD000026	DIODE SI CHIP	
D1105	MA2J72900L	DIODE SI CHIP	
D1106	MAZ80510ML	DIODE ZENER CHIP 5.1V	
D1107	MA2J72900L	DIODE SI CHIP	
D1108	MAZ80910ML	DIODE ZENER CHIP 9.1V	
D1109	MAZ80680ML	DIODE ZENER CHIP 6.8V	
D1110	MAZ80330HL	DIODE ZENER CHIP 6.3V	
D1111	MAZ80330HL	DIODE ZENER CHIP 6.3V	
D1112	B0JCME000041	DIODE SI CHIP	
D1113	MA2J111008	DIODE SI CHIP	
or D1113	B0ACCK000005	DIODE SI CHIP	
or D1113	MA2J11100L	DIODE SI CHIP	
D1114	MA2J111008	DIODE SI CHIP	
or D1114	B0ACCK000005	DIODE SI CHIP	
or D1114	MA2J11100L	DIODE SI CHIP	
D1115	MA2J111008	DIODE SI CHIP	
or D1115	B0ACCK000005	DIODE SI CHIP	
or D1115	MA2J11100L	DIODE SI CHIP	
D1116	MA2J111008	DIODE SI CHIP	
or D1116	B0ACCK000005	DIODE SI CHIP	
or D1116	MA2J11100L	DIODE SI CHIP	
D1117	MA2J111008	DIODE SI CHIP	
or D1117	B0ACCK000005	DIODE SI CHIP	
or D1117	MA2J11100L	DIODE SI CHIP	
D1118	MA2J72900L	DIODE SI CHIP	
D1119	MA2J111008	DIODE SI CHIP	
or D1119	B0ACCK000005	DIODE SI CHIP	
or D1119	MA2J11100L	DIODE SI CHIP	
D1120	MA2J111008	DIODE SI CHIP	
or D1120	B0ACCK000005	DIODE SI CHIP	
or D1120	MA2J11100L	DIODE SI CHIP	
D1121	MA2J111008	DIODE SI CHIP	
or D1121	B0ACCK000005	DIODE SI CHIP	
or D1121	MA2J11100L	DIODE SI CHIP	
D1122	MA2J111008	DIODE SI CHIP	
or D1122	B0ACCK000005	DIODE SI CHIP	
or D1122	MA2J11100L	DIODE SI CHIP	
D1123	MA2J111008	DIODE SI CHIP	
or D1123	B0ACCK000005	DIODE SI CHIP	
or D1123	MA2J11100L	DIODE SI CHIP	
D1124	MA2J111008	DIODE SI CHIP	
or D1124	B0ACCK000005	DIODE SI CHIP	
or D1124	MA2J11100L	DIODE SI CHIP	
D1125	MA2J111008	DIODE SI CHIP	
or D1125	B0ACCK000005	DIODE SI CHIP	
or D1125	MA2J11100L	DIODE SI CHIP	
D1126	MA2J111008	DIODE SI CHIP	
or D1126	B0ACCK000005	DIODE SI CHIP	
or D1126	MA2J11100L	DIODE SI CHIP	

Ref. No.	Part No.	Part Name & Description	Remarks
D5000	MAZ31100ML	DIODE ZENER CHIP 11V	
D5001	MAZ31100ML	DIODE ZENER CHIP 11V	
D5002	MAZ31100ML	DIODE ZENER CHIP 11V	
D5003	MAZ31100ML	DIODE ZENER CHIP 11V	
D5800	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5801	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5802	EZJZ0V80008B	VARISTOR 80V	
D5803	EZJZ0V80008B	VARISTOR 80V	
D5804	EZJZ0V80008B	VARISTOR 80V	
D5805	EZJZ0V80008B	VARISTOR 80V	
D5806	EZJZ0V80008B	VARISTOR 80V	
D5807	EZJZ0V80008B	VARISTOR 80V	
D5808	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5809	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5810	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5811	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5812	EZJZ0V80008B	VARISTOR 80V	
D5813	EZJZ0V80008B	VARISTOR 80V	
D5814	EZJZ0V80008B	VARISTOR 80V	
D5815	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5816	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5817	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5818	EZJZ0V80008B	VARISTOR 80V	
D5819	EZJZ0V80008B	VARISTOR 80V (D,E,F,G,H)	
D5820	MA3X152E0L	DIODE SI CHIP (D,E,F,G,H)	
or D5820	B0ADCJ000007	DIODE SI CHIP (D,E,F,G,H)	
D5821	MA3X152E0L	DIODE SI CHIP	
or D5821	B0ADCJ000007	DIODE SI CHIP	
D5822	EZJZ0V80008B	VARISTOR 80V	
D5824	B0JCGD000002	DIODE SI CHIP	
D6001	MA2J111008	DIODE SI CHIP	
or D6001	B0ACCK000005	DIODE SI CHIP	
or D6001	MA2J11100L	DIODE SI CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R1100	ERJ6GEYJ470V	MGF CHIP 1/10W 47	
R1101	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R1102	ERJ12YJ100H	MGF CHIP 1/2W 10	
R1103	D0HD184ZA002	MGF CHIP 1/10W 180K	
R1104	D0HD102ZA002	MGF CHIP 1/10W 1K	
R1105	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R1106	D0HD220ZA006	MGF CHIP 1/10W 22	
R1108	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R1109	D0HD391ZA002	MGF CHIP 1/10W 390	
R1110	ERJ3GEYJ822V	MGF CHIP 1/16W 8.2K	
R1111	ERJ3GEYJ105V	MGF CHIP 1/16W 1M	
R1112	D0HD103ZA002	MGF CHIP 1/10W 10K	
R1116	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1117	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1118	ERJ3EKF1001V	MGF CHIP 1/16W 1K	
R1123	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1126	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1128	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1129	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R1130	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1131	ERJ3GEYJ682V	MGF CHIP 1/16W 6.8K	
R1132	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1133	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R1134	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1135	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1136	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1137	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R1138	ERJ3GEYJ822V	MGF CHIP 1/16W 8.2K	
R1139	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R1140	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1141	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R1142	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R1143	ERJ3GEYJ124V	MGF CHIP 1/16W 120K	
R1144	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R1145	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1146	ERJ3EKF3901V	MGF CHIP 1/16W 3.9K	
R1147	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1148	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1149	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1150	ERJ3EKF1541V	MGF CHIP 1/16W 1.54K	
R1151	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1152	ERJ3EKF1001V	MGF CHIP 1/16W 1K	
R1153	ERJ3EKF2200V	MGF CHIP 1/16W 220	
R1154	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1155	ERJ8GEY0R00V	MGF CHIP 1/8W 0	
R1156	ERJ14BSJR10U	MGF CHIP 1/4W 0.1	
R1157	ERJ14BSJR10U	MGF CHIP 1/4W 0.1	
R1158	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R1160	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1161	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1164	ERJ14BSJR10U	MGF CHIP 1/4W 0.1	
R3001	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3002	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3007	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3008	J0JBC0000014	BEAD INDUCTOR	
R3009	J0JBC0000014	BEAD INDUCTOR	
R3010	J0JBC0000014	BEAD INDUCTOR	
R3011	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3012	J0JBC0000014	BEAD INDUCTOR	
R3013	J0JBC0000014	BEAD INDUCTOR	
R3014	J0JBC0000014	BEAD INDUCTOR	
R3015	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3016	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3017	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3018	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3019	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3021	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3024	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3025	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3039	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3040	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3041	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3042	ERA3YHD750V	MGF CHIP 1/16W 75	
R3043	ERA3YHD750V	MGF CHIP 1/16W 75	
R3044	ERA3YHD750V	MGF CHIP 1/16W 75	
R3045	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3046	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3049	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R3050	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R5001	ERJ3GEYJ561V	MGF CHIP 1/16W 560	
R5002	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5003	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5004	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5005	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5006	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5007	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5008	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5009	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5010	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5011	EXB38V220JV	ARRAY CHIP 22	
R5012	EXB38V220JV	ARRAY CHIP 22	
R5013	EXB38V220JV	ARRAY CHIP 22	
R5014	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5015	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5016	EXB38V220JV	ARRAY CHIP 22	
R5017	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5018	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5019	EXB38V220JV	ARRAY CHIP 22	
R5020	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5023	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5027	ERJ3EKF1801V	MGF CHIP 1/16W 1.8K	
R5028	ERJ3EKF1801V	MGF CHIP 1/16W 1.8K	
R5029	ERJ3EKF1301V	MGF CHIP 1/16W 1.3K	
R5030	ERJ3EKF1301V	MGF CHIP 1/16W 1.3K	
R5031	ERJ3EKF1741V	MGF CHIP 1/16W 1.74K	
R5032	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R5033	ERJ3EKF1741V	MGF CHIP 1/16W 1.74K	
R5034	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5035	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5036	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5037	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5038	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R5039	ERJ3EKF3002V	MGF CHIP 1/16W 30K	
R5040	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5041	ERJ3EKF3002V	MGF CHIP 1/16W 30K	
R5042	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5043	ERJ3GEYJ680V	MGF CHIP 1/16W 68	
R5044	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5045	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5046	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5047	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5048	EXB38V101JV	ARRAY CHIP 100	
R5049	EXB38V101JV	ARRAY CHIP 100	
R5050	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5051	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5052	ERJ3GEYF101V	MGF CHIP 1/16W 100	
R5054	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5055	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5058	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R5059	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R5062	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5063	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5064	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5065	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5066	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5067	ERJ3EKF1741V	MGF CHIP 1/16W 1.74K	
R5068	ERJ3EKF1741V	MGF CHIP 1/16W 1.74K	
R5078	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5079	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5080	EXB38V101JV	ARRAY CHIP 100	
R5081	EXB38V101JV	ARRAY CHIP 100	
R5082	EXB38V101JV	ARRAY CHIP 100	
R5083	EXB38V101JV	ARRAY CHIP 100	
R5084	EXB38V101JV	ARRAY CHIP 100	
R5085	EXB38V101JV	ARRAY CHIP 100	
R5086	EXB38V101JV	ARRAY CHIP 100	
R5087	EXB38V101JV	ARRAY CHIP 100	
R5088	EXB38V101JV	ARRAY CHIP 100	
R5089	EXB38V101JV	ARRAY CHIP 100	
R5090	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5092	ERJ3GEYJ203V	MGF CHIP 1/16W 20K	
R5093	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R5094	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5095	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5096	ERJ3GEYJ680V	MGF CHIP 1/16W 68	
R5097	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5098	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5099	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5100	ERJ3EKF4302V	MGF CHIP 1/16W 43K	
R5101	ERJ3EKF1202V	MGF CHIP 1/16W 12K	
R5102	ERJ3EKF1800V	MGF CHIP 1/16W 180	
R5103	ERJ3EKF2001V	MGF CHIP 1/16W 2K	
R5107	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5108	ERJ3GEYJ270V	MGF CHIP 1/16W 27	
R5109	ERJ3GEYJ270V	MGF CHIP 1/16W 27	
R5110	ERJ3GEYJ270V	MGF CHIP 1/16W 27	
R5112	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5113	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R5114	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5115	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5116	ERJ3EKF1500V	MGF CHIP 1/16W 150	
R5119	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5120	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5121	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5122	EXB38V820JV	ARRAY CHIP 82	
R5123	EXB38V820JV	ARRAY CHIP 82	
R5124	EXB38V820JV	ARRAY CHIP 82	
R5125	EXB38V820JV	ARRAY CHIP 82	
R5126	EXB38V820JV	ARRAY CHIP 82	

Ref. No.	Part No.	Part Name & Description	Remarks
R5127	EXB38V820JV	ARRAY CHIP 82	
R5128	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R5129	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R5130	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R5131	ERJ3EKF1691V	MGF CHIP 1/16W 1.69K	
R5132	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5133	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5134	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5135	ERJ3GEYJ391V	MGF CHIP 1/16W 390	
R5136	ERJ3EKF1001V	MGF CHIP 1/16W 1K	
R5137	ERJ3EKF1501V	MGF CHIP 1/16W 1.5K	
R5138	ERJ3EKF2201V	MGF CHIP 1/16W 2.2K	
R5139	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5140	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5141	ERJ3GEYJ152V	MGF CHIP 1/16W 1.5K	
R5142	ERJ3GEYJ152V	MGF CHIP 1/16W 1.5K	
R5143	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R5144	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R5147	ERJ3EKF1371V	MGF CHIP 1/16W 1.37K	
R5148	ERJ3EKF1600V	MGF CHIP 1/16W 160	
R5149	ERJ3GEYJ273V	MGF CHIP 1/16W 27K	
R5150	ERJ3EKF4302V	MGF CHIP 1/16W 43K	
R5153	ERJ3GEYJ331V	MGF CHIP 1/16W 330	
R5154	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5155	ERJ3GEYJ820V	MGF CHIP 1/16W 82	
R5156	ERJ3GEYJ330V	MGF CHIP 1/16W 33	
R5157	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5158	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5159	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5161	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5164	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R5165	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5166	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5167	ERJ3GEYJ121V	MGF CHIP 1/16W 120	
R5168	ERJ3GEYJ121V	MGF CHIP 1/16W 120	
R5169	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5171	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5172	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5174	F1H1H102A219	C CHIP 50V 1000PF	
R5175	F1H1H102A219	C CHIP 50V 1000PF	
R5181	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5184	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5203	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R5207	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5334	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5353	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R5354	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R5355	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5356	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5359	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5701	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5702	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5704	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5705	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5706	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5707	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5708	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5709	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5710	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5711	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5712	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5713	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R5714	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5715	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R5716	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5717	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5718	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5719	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5720	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5721	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5722	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5723	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5724	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R5725	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5726	ERJ3GEYJ561V	MGF CHIP 1/16W 560	
R5727	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5728	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5800	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5802	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5804	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5805	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5808	ERJ3GEYJ103V	MGF CHIP 1/16W 10K (D,E,F,G,H)	
R5809	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5810	ERJ3GEYJ103V	MGF CHIP 1/16W 10K (D,E,F,G,H)	
R5811	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5817	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5819	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5820	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5821	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5822	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5823	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5824	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5825	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5826	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5827	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K (A,B,C)	
R5828	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R5829	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K (D,E,F,G,H)	
R5831	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K (D,E,F,G,H)	
R5833	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R5834	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R5835	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K (A,B,C)	
R5837	ERJ3GEYJ473V	MGF CHIP 1/16W 47K (D,E,F,G,H)	
R5838	ERJ3GEYJ473V	MGF CHIP 1/16W 47K (D,E,F,G,H)	
R5839	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R5840	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R5841	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R5842	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5843	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5844	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5845	ERJ3GEYJ102V	MGF CHIP 1/16W 1K (D,E,F,G,H)	
R5846	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R5847	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5848	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5849	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5850	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5851	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5852	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5853	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5854	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5855	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5856	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5857	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5858	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5859	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5860	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5861	ERJ3GEYJ8R2V	MGF CHIP 1/16W 8.2	
R5862	ERJ3GEYJ6R8V	MGF CHIP 1/16W 6.8 (D,E,F,G,H)	
R5864	EXB38V330JV	ARRAY CHIP 33	
R5865	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R5867	ERJ3GEYJ100V	MGF CHIP 1/16W 10 (D,E,F,G,H)	
R5871	ERJ3GEYJ330V	MGF CHIP 1/16W 33	
R5872	ERJ3GEYJ330V	MGF CHIP 1/16W 33	
R5874	ERJ3GEYJ330V	MGF CHIP 1/16W 33	
R5875	ERJ3GEYJ330V	MGF CHIP 1/16W 33	
R5876	ERJ3GEYJ390V	MGF CHIP 1/16W 39	
R5877	ERJ3GEYJ390V	MGF CHIP 1/16W 39 (D,E,F,G,H)	
R5878	ERJ3GEYJ560V	MGF CHIP 1/16W 56 (D,E,F,G,H)	
R5879	ERJ3GEYJ560V	MGF CHIP 1/16W 56 (D,E,F,G,H)	
R5880	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R5881	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R5882	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R5883	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R5887	ERJ3GEYJ623V	MGF CHIP 1/16W 62K	
R5888	ERJ3GEYJ623V	MGF CHIP 1/16W 62K	
R5889	ERJ3GEYJ105V	MGF CHIP 1/16W 1M	
R5890	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5891	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5893	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5894	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5895	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5896	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5897	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5898	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5900	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5904	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5907	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5909	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5911	ERJ3GEY0R00V	MGF CHIP 1/16W 0 (D,E,F,G,H)	
R5913	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5914	ERJ3GEY0R00V	MGF CHIP 1/16W 0 (D,E,F,G,H)	
R5915	ERJ3GEY0R00V	MGF CHIP 1/16W 0 (D,E,F,G,H)	
R5916	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5917	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5918	ERJ3GEY0R00V	MGF CHIP 1/16W 0 (D,E,F,G,H)	
R5919	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5920	EXB38V220JV	ARRAY CHIP 22	
R5921	EXB38V220JV	ARRAY CHIP 22	
R5922	EXB38V220JV	ARRAY CHIP 22	
R5923	EXB38V220JV	ARRAY CHIP 22	
R5924	EXB38V220JV	ARRAY CHIP 22	
R5925	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R5927	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R5929	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5930	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5931	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R5932	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R5933	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R5934	ERJ3GEYJ224V	MGF CHIP 1/16W 220K	
R5935	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R5936	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R5937	ERJ3GEYF333V	MGF CHIP 1/16W 33K	
R5938	ERJ3GEYF333V	MGF CHIP 1/16W 33K	
R5942	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R5944	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R5945	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R5946	ERJ3GEYJ225V	MGF CHIP 1/16W 2.2M	
R5947	ERJ3GEYJ273V	MGF CHIP 1/16W 27K	
R5948	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5949	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5951	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5956	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R5958	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5960	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R5962	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R5963	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5964	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R5965	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R5985	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R6000	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6002	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	

Ref. No.	Part No.	Part Name & Description	Remarks
R6004	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6007	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R6008	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R6010	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6011	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6013	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6014	EXB38V221JV	ARRAY CHIP 220	
R6015	EXB38V220JV	ARRAY CHIP 22	
R6016	EXB38V220JV	ARRAY CHIP 22	
R6017	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6018	EXB38V220JV	ARRAY CHIP 22	
R6019	EXB38V220JV	ARRAY CHIP 22	
R6020	EXB38V220JV	ARRAY CHIP 22	
R6021	EXB38V220JV	ARRAY CHIP 22	
R6022	EXB38V220JV	ARRAY CHIP 22	
R6023	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6024	EXB38V220JV	ARRAY CHIP 22	
R6025	EXB38V220JV	ARRAY CHIP 22	
R6026	EXB38V220JV	ARRAY CHIP 22	
R6027	EXB38V220JV	ARRAY CHIP 22	
R6028	EXB38V220JV	ARRAY CHIP 22	
R6029	EXB38V220JV	ARRAY CHIP 22	
R6030	EXB38V220JV	ARRAY CHIP 22	
R6031	EXB38V220JV	ARRAY CHIP 22	
R6032	EXB38V220JV	ARRAY CHIP 22	
R6033	EXB38V220JV	ARRAY CHIP 22	
R6034	EXB38VR000V	ARRAY CHIP 0	
R6035	EXB38VR000V	ARRAY CHIP 0	
R6036	EXB38VR000V	ARRAY CHIP 0	
R6037	EXB38VR000V	ARRAY CHIP 0	
R6038	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6039	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6040	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6041	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6044	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6045	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6046	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6047	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6049	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6051	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6052	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6053	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6054	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6055	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6056	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6057	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6058	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6059	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6060	EXB38V101JV	ARRAY CHIP 100	
R6061	ERJ3EKF1801V	MGF CHIP 1/16W 1.8K	
R6062	ERJ3EKF3901V	MGF CHIP 1/16W 3.9K	
R6063	ERJ3EKF6801V	MGF CHIP 1/16W 6.8K	
R6064	ERJ3GEYJ682V	MGF CHIP 1/16W 6.8K	
R6065	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R6066	ERJ3EKF5601V	MGF CHIP 1/16W 5.6K	
R6067	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6068	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6069	EXB38V220JV	ARRAY CHIP 22	
R6070	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6071	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6072	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6073	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6074	ERJ3EKF5601V	MGF CHIP 1/16W 5.6K	
R6075	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6076	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6077	ERJ3GEYJ272V	MGF CHIP 1/16W 2.7K	
R6078	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6079	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6080	ERJ3GEYJ272V	MGF CHIP 1/16W 2.7K	
R6083	EXB38V220JV	ARRAY CHIP 22	
R6084	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6089	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6090	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6091	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6092	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6093	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6094	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6095	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6096	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6097	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6098	ERJ3GEYJ821V	MGF CHIP 1/16W 820	
R6099	ERJ3GEYJ474V	MGF CHIP 1/16W 470K	
R6100	ERJ3GEYJ474V	MGF CHIP 1/16W 470K	
R6101	ERJ3GEYJ124V	MGF CHIP 1/16W 120K	
R6102	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6103	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R6105	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6106	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R6107	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6108	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R6109	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6112	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6113	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6114	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6116	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6118	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R6119	ERJ3GEYJ563V	MGF CHIP 1/16W 56K	
R6120	ERJ3GEYJ823V	MGF CHIP 1/16W 82K	
R6122	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6123	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6124	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6125	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6126	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6127	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6128	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6131	ERJ3GEYJ392V	MGF CHIP 1/16W 3.9K	
R6132	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R6133	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R6134	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R6135	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6136	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6141	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6142	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6143	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6144	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6145	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6146	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6147	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6148	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6150	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6151	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6152	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6153	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6154	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6155	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6156	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6157	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6158	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6159	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6164	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R6165	ERJ3GEYJ123V	MGF CHIP 1/16W 12K	
R6166	ERJ3GEYJ241V	MGF CHIP 1/16W 240	
R6167	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6169	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6172	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R6173	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6175	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R6177	ERJ3GEYJ392V	MGF CHIP 1/16W 3.9K	
R6179	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6181	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6191	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6192	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6193	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R6194	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R6195	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6196	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	

Ref. No.	Part No.	Part Name & Description	Remarks
R6197	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6198	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6199	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R6201	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6202	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6206	J0JHC0000031	EMI FILTER CHIP	
R6207	J0JHC0000031	EMI FILTER CHIP	
R6208	J0JHC0000031	EMI FILTER CHIP	
R6209	J0JHC0000031	EMI FILTER CHIP	
R6210	J0JHC0000031	EMI FILTER CHIP	
R6211	J0JHC0000031	EMI FILTER CHIP	
R6212	J0JHC0000031	EMI FILTER CHIP	
R6213	J0JHC0000031	EMI FILTER CHIP	
R6214	J0JHC0000031	EMI FILTER CHIP	
R6215	J0JHC0000031	EMI FILTER CHIP	
R6216	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6221	ERJ3GEYJ472V	MGF CHIP 1/16W 4.7K	
R6223	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6224	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6226	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R6230	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6231	ERJ3GEYJ682V	MGF CHIP 1/16W 6.8K	
R6233	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R6234	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R6238	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R6250	ERJ3GEYJ473V	MGF CHIP 1/16W 47K (A,B,C)	
R6251	ERJ3GEYJ473V	MGF CHIP 1/16W 47K (D,E,F,G,H)	
R6253	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
JS6000	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C1101	ECJ1VB1E104K	C CHIP 25V 0.1UF	
C1102	ECJ1VB1C105K	C CHIP 16V 1UF	
C1104	ECJ1VB1E104K	C CHIP 25V 0.1UF	
C1105	ECJ2VC1H471J	C CHIP 50V 470PF	
C1106	F1H1H102A219	C CHIP 50V 1000PF	
C1107	F1J1H102A623	C CHIP 50V 1000PF	
C1108	F1H1H102A219	C CHIP 50V 1000PF	
C1110	F1H1H103A219	C CHIP 50V 0.01UF	
C1111	F1H1H103A219	C CHIP 50V 0.01UF	
C1112	F1H1H103A219	C CHIP 50V 0.01UF	
C1113	EEEFK1C681P	ELECTROLYTIC 16V 680UF	
C1114	F1H1C104A008	C CHIP 16V 0.1UF	
C1116	EEEFK1C471P	ELECTROLYTIC 16V 470UF	
C1117	EEEFK1C471P	ELECTROLYTIC 16V 470UF	
C1120	EEEFK1C681P	ELECTROLYTIC 16V 680UF	
C1121	EEEFK1C681P	ELECTROLYTIC 16V 680UF	
C1125	F1H0J1050012	C CHIP 6.3V 1UF	
C1126	F1H1H104A731	C CHIP 50V 0.1UF	
C1127	F1H1H103A219	C CHIP 50V 0.01UF	
C1128	ECJ1VB1C224K	C CHIP 16V 0.22UF	
C1129	F1H1H104A731	C CHIP 50V 0.1UF	
C1130	F1H1H104A731	C CHIP 50V 0.1UF	
C1131	F1H1H104A731	C CHIP 50V 0.1UF	
C1132	F1H1H103A220	C CHIP 50V 0.01UF	
C1133	F1H1H103A220	C CHIP 50V 0.01UF	
C1134	F1H1H104A731	C CHIP 50V 0.1UF	
C1135	ECJ1VB1C224K	C CHIP 16V 0.22UF	
C1136	F1H0J1050012	C CHIP 6.3V 1UF	
C1137	ECJ1VB1C224K	C CHIP 16V 0.22UF	
C1138	F1H1H104A731	C CHIP 50V 0.1UF	
C1139	F1H1H104A731	C CHIP 50V 0.1UF	
C1140	EEEFK1C101P	ELECTROLYTIC 16V 100UF	
C1141	F1H1H104A731	C CHIP 50V 0.1UF	
C1142	F1H1H104A731	C CHIP 50V 0.1UF	
C1143	F1H1H104A731	C CHIP 50V 0.1UF	
C1145	EEEFK1C471P	ELECTROLYTIC 16V 470UF	
C1146	EEEFK1C471P	ELECTROLYTIC 16V 470UF	
C1147	F1L1C2260012	C CHIP 16V 22UF	
C1149	EEEFK1C471P	ELECTROLYTIC 16V 470UF	
C3000	ECJ3YF1A106Z	C CHIP 10V 10UF	
C3001	ECJ3YF1A106Z	C CHIP 10V 10UF	
C3002	ECJ3YF1A106Z	C CHIP 10V 10UF	
C5000	F1H1C104A008	C CHIP 16V 0.1UF	
C5001	F1H1H102A219	C CHIP 50V 1000PF	
C5002	ECJ1VC1H120J	C CHIP 50V 12PF	
C5004	F1H1C104A008	C CHIP 16V 0.1UF	
C5005	F1H1C104A008	C CHIP 16V 0.1UF	
C5006	F1H1C104A008	C CHIP 16V 0.1UF	
C5007	F1H1C104A008	C CHIP 16V 0.1UF	
C5008	F1H1H103A220	C CHIP 50V 0.01UF	
C5009	F1H1H103A220	C CHIP 50V 0.01UF	
C5010	F1H1H103A220	C CHIP 50V 0.01UF	
C5011	F1H1C104A008	C CHIP 16V 0.1UF	
C5012	F1H1C104A008	C CHIP 16V 0.1UF	
C5013	F1H1C104A008	C CHIP 16V 0.1UF	
C5014	F1H1C104A008	C CHIP 16V 0.1UF	
C5015	F1H1C104A008	C CHIP 16V 0.1UF	
C5016	F1H1H103A220	C CHIP 50V 0.01UF	
C5017	F1H1H103A220	C CHIP 50V 0.01UF	
C5018	F1H1H103A220	C CHIP 50V 0.01UF	
C5019	F1H1H103A220	C CHIP 50V 0.01UF	
C5020	F1H1C104A008	C CHIP 16V 0.1UF	
C5021	F1H1C104A008	C CHIP 16V 0.1UF	
C5022	F1H1C104A008	C CHIP 16V 0.1UF	
C5023	F1H1C104A008	C CHIP 16V 0.1UF	
C5024	F1H1H103A220	C CHIP 50V 0.01UF	
C5025	F1H1H103A220	C CHIP 50V 0.01UF	
C5026	F1H1H103A220	C CHIP 50V 0.01UF	
C5027	F1H1H103A220	C CHIP 50V 0.01UF	
C5028	F1H1C104A008	C CHIP 16V 0.1UF	
C5029	F1H1C104A008	C CHIP 16V 0.1UF	
C5030	F1H1C104A008	C CHIP 16V 0.1UF	
C5031	F1H1C104A008	C CHIP 16V 0.1UF	
C5032	F1H1C104A008	C CHIP 16V 0.1UF	
C5033	F1H1C104A008	C CHIP 16V 0.1UF	
C5034	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5035	EEFCD0G560R	ELECTROLYTIC CHIP 4V 56UF	
C5036	F2H0J220A010	ELECTROLYTIC CHIP 6.3V 22UF	
C5037	F1H1C104A008	C CHIP 16V 0.1UF	
C5038	F1H1C104A008	C CHIP 16V 0.1UF	
C5039	F1H1C104A008	C CHIP 16V 0.1UF	
C5040	F1H1C104A008	C CHIP 16V 0.1UF	
C5041	F1H1C104A008	C CHIP 16V 0.1UF	
C5042	F1H1C104A008	C CHIP 16V 0.1UF	
C5043	F1H1C104A008	C CHIP 16V 0.1UF	
C5044	F1H1C104A008	C CHIP 16V 0.1UF	
C5045	F1H1C104A008	C CHIP 16V 0.1UF	
C5046	F1H1C104A008	C CHIP 16V 0.1UF	
C5047	F1H1C104A008	C CHIP 16V 0.1UF	
C5048	F1H1C104A008	C CHIP 16V 0.1UF	
C5049	F1H1C104A008	C CHIP 16V 0.1UF	
C5050	F1H1C104A008	C CHIP 16V 0.1UF	
C5051	F1H1C104A008	C CHIP 16V 0.1UF	
C5052	F1H1C104A008	C CHIP 16V 0.1UF	
C5053	F1H1C104A008	C CHIP 16V 0.1UF	
C5054	F1H1C104A008	C CHIP 16V 0.1UF	
C5055	F1H1C104A008	C CHIP 16V 0.1UF	
C5056	F1H1C104A008	C CHIP 16V 0.1UF	
C5057	F1H1C104A008	C CHIP 16V 0.1UF	
C5058	F1H1C104A008	C CHIP 16V 0.1UF	
C5059	F1H1C104A008	C CHIP 16V 0.1UF	
C5060	F1H1C104A008	C CHIP 16V 0.1UF	
C5061	F1H1H102A219	C CHIP 50V 1000PF	
C5062	F1H1H102A219	C CHIP 50V 1000PF	
C5063	F1H1H102A219	C CHIP 50V 1000PF	
C5064	F1H1H102A219	C CHIP 50V 1000PF	
C5065	F1H1H102A219	C CHIP 50V 1000PF	
C5066	F1H1H102A219	C CHIP 50V 1000PF	
C5067	F1H1H102A219	C CHIP 50V 1000PF	
C5068	F1H1H102A219	C CHIP 50V 1000PF	
C5069	F1H1H102A219	C CHIP 50V 1000PF	
C5070	F1H1H102A219	C CHIP 50V 1000PF	
C5071	F1H1H102A219	C CHIP 50V 1000PF	

Ref. No.	Part No.	Part Name & Description	Remarks
C5072	F1H1H102A219	C CHIP 50V 1000PF	
C5073	F1H1H102A219	C CHIP 50V 1000PF	
C5074	F1H1H102A219	C CHIP 50V 1000PF	
C5075	F1H1H102A219	C CHIP 50V 1000PF	
C5076	F1H0J1050012	C CHIP 6.3V 1UF	
C5077	F1H0J1050012	C CHIP 6.3V 1UF	
C5078	F1H0J1050012	C CHIP 6.3V 1UF	
C5079	F1H0J1050012	C CHIP 6.3V 1UF	
C5080	F1H0J1050012	C CHIP 6.3V 1UF	
C5081	F1H0J1050012	C CHIP 6.3V 1UF	
C5082	F2H0J330A010	ELECTROLYTIC CHIP 6.3V 33UF	
C5083	F1H1H103A220	C CHIP 50V 0.01UF	
C5084	F1H1H103A220	C CHIP 50V 0.01UF	
C5085	F1H0J1050012	C CHIP 6.3V 1UF	
C5086	F1H0J1050012	C CHIP 6.3V 1UF	
C5087	F1H0J1050012	C CHIP 6.3V 1UF	
C5088	F1H1H103A220	C CHIP 50V 0.01UF	
C5089	F1H1H102A219	C CHIP 50V 1000PF	
C5090	F1H1H102A219	C CHIP 50V 1000PF	
C5091	F1H1C104A008	C CHIP 16V 0.1UF	
C5092	F1H1C104A008	C CHIP 16V 0.1UF	
C5093	F1H1H102A219	C CHIP 50V 1000PF	
C5094	F1H1H102A219	C CHIP 50V 1000PF	
C5095	F1H1C104A008	C CHIP 16V 0.1UF	
C5096	F1H1C104A008	C CHIP 16V 0.1UF	
C5097	F1H1H102A219	C CHIP 50V 1000PF	
C5098	F1H1H102A219	C CHIP 50V 1000PF	
C5099	F1H1C104A008	C CHIP 16V 0.1UF	
C5100	F1H1C104A008	C CHIP 16V 0.1UF	
C5101	F1H1H102A219	C CHIP 50V 1000PF	
C5102	F1H1C104A008	C CHIP 16V 0.1UF	
C5103	F1H1C104A008	C CHIP 16V 0.1UF	
C5104	F1H1C104A008	C CHIP 16V 0.1UF	
C5105	F1H1H102A219	C CHIP 50V 1000PF	
C5106	F1H1H102A219	C CHIP 50V 1000PF	
C5107	F1H1C104A008	C CHIP 16V 0.1UF	
C5108	F1H1C104A008	C CHIP 16V 0.1UF	
C5109	F1H1H102A219	C CHIP 50V 1000PF	
C5110	F1H1H102A219	C CHIP 50V 1000PF	
C5111	F1H1C104A008	C CHIP 16V 0.1UF	
C5112	F1H1C104A008	C CHIP 16V 0.1UF	
C5113	F1H1C104A008	C CHIP 16V 0.1UF	
C5114	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5115	F1H1H103A220	C CHIP 50V 0.01UF	
C5117	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5118	F1H1C104A008	C CHIP 16V 0.1UF	
C5119	F1H0J1050012	C CHIP 6.3V 1UF	
C5120	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5121	F1H0J1050012	C CHIP 6.3V 1UF	
C5122	F1H1C104A008	C CHIP 16V 0.1UF	
C5123	F1H1C104A041	C CHIP 16V 0.1UF	
C5124	F1H1C104A041	C CHIP 16V 0.1UF	
C5125	F1H1C104A041	C CHIP 16V 0.1UF	
C5126	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C5128	F1H1C104A041	C CHIP 16V 0.1UF	
C5131	F1H1C104A041	C CHIP 16V 0.1UF	
C5132	F1H1C104A041	C CHIP 16V 0.1UF	
C5133	F1H1C104A041	C CHIP 16V 0.1UF	
C5134	F1H1C104A008	C CHIP 16V 0.1UF	
C5135	F1H1C104A041	C CHIP 16V 0.1UF	
C5136	F1H1C104A041	C CHIP 16V 0.1UF	
C5137	ECJ1VC1H120J	C CHIP 50V 12PF	
C5138	F1H0J1050012	C CHIP 6.3V 1UF	
C5139	F1H1H103A219	C CHIP 50V 0.01UF	
C5140	F1H0J1050012	C CHIP 6.3V 1UF	
C5141	F1H1H103A219	C CHIP 50V 0.01UF	
C5142	F1H1C104A041	C CHIP 16V 0.1UF	
C5143	F1H1H103A220	C CHIP 50V 0.01UF	
C5144	F1H1H103A220	C CHIP 50V 0.01UF	
C5145	F1H1H103A220	C CHIP 50V 0.01UF	
C5146	ECJ1VC1H102J	C CHIP 50V 1000PF	
C5147	F1H1C104A041	C CHIP 16V 0.1UF	
C5149	F1H1C104A041	C CHIP 16V 0.1UF	
C5150	ECJ1VC1H102J	C CHIP 50V 1000PF	
C5151	F1H1C104A041	C CHIP 16V 0.1UF	
C5152	F1H1C104A041	C CHIP 16V 0.1UF	
C5154	F1H1C104A041	C CHIP 16V 0.1UF	
C5155	F1H1H103A220	C CHIP 50V 0.01UF	
C5156	F1H1C104A041	C CHIP 16V 0.1UF	
C5157	F1H1C104A041	C CHIP 16V 0.1UF	
C5158	F1H1C104A041	C CHIP 16V 0.1UF	
C5159	F1H1C104A041	C CHIP 16V 0.1UF	
C5160	F1H1C104A041	C CHIP 16V 0.1UF	
C5161	F1H1H103A220	C CHIP 50V 0.01UF	
C5162	F1H1C104A041	C CHIP 16V 0.1UF	
C5163	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5164	F1H1C104A008	C CHIP 16V 0.1UF	
C5165	F1H1H103A219	C CHIP 50V 0.01UF	
C5166	ECJ1VB1C823K	C CHIP 16V 0.082UF	
C5167	F1H1C104A041	C CHIP 16V 0.1UF	
C5168	ECJ1VB0J684K	C CHIP 6.3V 0.68UF	
C5169	F1H1C104A008	C CHIP 16V 0.1UF	
C5170	F1H1C104A008	C CHIP 16V 0.1UF	
C5171	ECJ1VF0J225Z	C CHIP 6.3V 2.2UF	
C5172	F1H1C104A008	C CHIP 16V 0.1UF	
C5173	F1H1H471A737	C CHIP 50V 470PF	
C5175	ECJ1VF0J225Z	C CHIP 6.3V 2.2UF	
C5176	ECJ1VF0J225Z	C CHIP 6.3V 2.2UF	
C5177	F1H1C104A008	C CHIP 16V 0.1UF	
C5178	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5179	F1H1C104A008	C CHIP 16V 0.1UF	
C5180	F1H1C104A008	C CHIP 16V 0.1UF	
C5181	F1H1C104A008	C CHIP 16V 0.1UF	
C5182	F1H1C104A041	C CHIP 16V 0.1UF	
C5183	F1H1C104A008	C CHIP 16V 0.1UF	
C5184	F1H1C104A008	C CHIP 16V 0.1UF	
C5185	F1H1C104A008	C CHIP 16V 0.1UF	
C5186	F1H0J1050012	C CHIP 6.3V 1UF	
C5187	F1H1H103A219	C CHIP 50V 0.01UF	
C5189	F2H1C100A009	ELECTROLYTIC CHIP 16V 10UF	
C5190	F1H1H103A219	C CHIP 50V 0.01UF	
C5192	F1H1C104A008	C CHIP 16V 0.1UF	
C5193	F1H1C104A008	C CHIP 16V 0.1UF	
C5194	F1H1H180A230	C CHIP 50V 18PF	
C5195	ECJ1VB0J475K	C CHIP 6.3V 4.7UF	
C5196	F1H1C104A008	C CHIP 16V 0.1UF	
C5197	ECJ1VC1H150J	C CHIP 50V 15PF	
C5198	F1H1C104A008	C CHIP 16V 0.1UF	
C5199	ECJ1VB0J475K	C CHIP 6.3V 4.7UF	
C5200	F1J0J1060004	C CHIP 6.3V 10UF	
C5201	F2H1C100A009	ELECTROLYTIC CHIP 16V 10UF	
C5202	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5203	F1J0J1060004	C CHIP 6.3V 10UF	
C5204	ECJ1VB1E393K	C CHIP 25V 0.039UF	
C5205	F2H0G221A005	ELECTROLYTIC CHIP 4V 220UF	
C5206	EEFCD0G560R	ELECTROLYTIC CHIP 4V 56UF	
C5207	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5208	F2H0G221A005	ELECTROLYTIC CHIP 4V 220UF	
C5209	F1H1H101A230	C CHIP 50V 100PF	
C5210	ERJ8GEYJ224V	MGF CHIP 1/8W 220K	
C5211	ERJ8GEYJ224V	MGF CHIP 1/8W 220K	
C5212	F1H0J1050012	C CHIP 6.3V 1UF	
C5213	F1H1H330A230	C CHIP 50V 33PF	
C5214	F1H1H330A230	C CHIP 50V 33PF	
C5273	F1H1C104A008	C CHIP 16V 0.1UF	
C5275	F1H1H330A230	C CHIP 50V 33PF	
C5363	F1H1C104A008	C CHIP 16V 0.1UF	
C5700	F1H1H102A219	C CHIP 50V 1000PF	
C5701	F1H1H102A219	C CHIP 50V 1000PF	
C5706	F1H1C104A041	C CHIP 16V 0.1UF	
C5707	F1H1C104A041	C CHIP 16V 0.1UF	
C5708	F1H1C104A041	C CHIP 16V 0.1UF	
C5709	F1H1C104A041	C CHIP 16V 0.1UF	
C5710	F1H1C104A041	C CHIP 16V 0.1UF	
C5711	F1H1C104A041	C CHIP 16V 0.1UF	
C5712	F1H1C104A008	C CHIP 16V 0.1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C5714	F1H1C104A008	C CHIP 16V 0.1UF	
C5715	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C5716	F1H1H104A731	C CHIP 50V 0.1UF	
C5717	F1H1H103A219	C CHIP 50V 0.01UF	
C5718	ECJ1VB1C224K	C CHIP 16V 0.22UF	
C5800	F1H1C104A008	C CHIP 16V 0.1UF	
C5801	F1H1C104A008	C CHIP 16V 0.1UF	
C5802	F1H1C104A008	C CHIP 16V 0.1UF	
C5803	F1H1C104A008	C CHIP 16V 0.1UF	
C5804	F1H1C104A008	C CHIP 16V 0.1UF (D,E,F,G,H)	
C5805	F1H1C104A008	C CHIP 16V 0.1UF	
C5806	F1H1C104A008	C CHIP 16V 0.1UF	
C5807	F1H1C104A008	C CHIP 16V 0.1UF	
C5808	F1H1C104A008	C CHIP 16V 0.1UF (D,E,F,G,H)	
C5809	F1H1C104A008	C CHIP 16V 0.1UF	
C5810	F1H1C104A008	C CHIP 16V 0.1UF	
C5811	F1H1C104A008	C CHIP 16V 0.1UF	
C5812	F1H1C104A008	C CHIP 16V 0.1UF	
C5813	F1H1C104A008	C CHIP 16V 0.1UF	
C5814	F1H1C104A008	C CHIP 16V 0.1UF	
C5815	F1H1C104A008	C CHIP 16V 0.1UF	
C5816	F1H1C104A008	C CHIP 16V 0.1UF (D,E,F,G,H)	
C5817	F1H1C104A008	C CHIP 16V 0.1UF	
C5818	F1H1C104A008	C CHIP 16V 0.1UF (D,E,F,G,H)	
C5819	F1H1C104A008	C CHIP 16V 0.1UF	
C5821	F1H1C104A008	C CHIP 16V 0.1UF	
C5823	F1H1C104A008	C CHIP 16V 0.1UF	
C5824	F1H1C104A008	C CHIP 16V 0.1UF	
C5825	F1H1C104A008	C CHIP 16V 0.1UF	
C5826	F1H1C104A008	C CHIP 16V 0.1UF	
C5828	F1H1C104A008	C CHIP 16V 0.1UF	
C5829	F1H1C104A008	C CHIP 16V 0.1UF	
C5830	F1H1C104A008	C CHIP 16V 0.1UF	
C5831	F1H1C104A008	C CHIP 16V 0.1UF	
C5832	F1H1C104A008	C CHIP 16V 0.1UF	
C5833	F1H1C104A008	C CHIP 16V 0.1UF	
C5834	F1H1A105A019	C CHIP 10V 1UF	
C5835	ECJ1VF1A105Z	C CHIP 10V 1UF (D,E,F,G,H)	
C5836	F1H1A105A019	C CHIP 10V 1UF	
C5837	F1H1A105A019	C CHIP 10V 1UF	
C5838	F1H1A105A019	C CHIP 10V 1UF	
C5839	F1H1A105A019	C CHIP 10V 1UF	
C5840	F1H1A105A019	C CHIP 10V 1UF	
C5841	F1H1A105A019	C CHIP 10V 1UF	
C5842	F1H1A105A019	C CHIP 10V 1UF	
C5843	F1H1A105A019	C CHIP 10V 1UF	
C5844	F1H1A105A019	C CHIP 10V 1UF	
C5845	F1H1A105A019	C CHIP 10V 1UF	
C5846	F1H1H103A220	C CHIP 50V 0.01UF	
C5848	F1H1H103A220	C CHIP 50V 0.01UF (D,E,F,G,H)	
C5850	F1H1H221A009	C CHIP 50V 220PF	
C5851	F1H1H181A230	C CHIP 50V 180PF	
C5852	F1H1H181A230	C CHIP 50V 180PF	
C5853	ECJ2FB0J106K	C CHIP 6.3V 10UF	
C5854	F1H1H103A219	C CHIP 50V 0.01UF	
C5855	F1H1H180A230	C CHIP 50V 18PF	
C5856	F1H1H180A230	C CHIP 50V 18PF	
C5857	F1H1H330A230	C CHIP 50V 33PF	
C5858	F1H1H330A230	C CHIP 50V 33PF	
C5859	F1H1A105A019	C CHIP 10V 1UF	
C5867	F2H1C470A009	ELECTROLYTIC CHIP 16V 47UF	
C5868	F2H1C470A009	ELECTROLYTIC CHIP 16V 47UF	
C5869	F2H1C470A009	ELECTROLYTIC CHIP 16V 47UF	
C5870	ECJ1VC1H271J	C CHIP 50V 270PF	
C5871	F1H1C104A008	C CHIP 16V 0.1UF	
C5872	F2H0J330A010	ELECTROLYTIC CHIP 6.3V 33UF (D,E,F,G,H)	
C5873	F2H0J330A010	ELECTROLYTIC CHIP 6.3V 33UF	
C5874	F1J0J1060004	C CHIP 6.3V 10UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C5875	F1J0J1060004	C CHIP 6.3V 10UF	
C5877	F1J0J1060004	C CHIP 6.3V 10UF	
C5878	F1J0J1060004	C CHIP 6.3V 10UF	
C5881	F2G0J101A032	ELECTROLYTIC CHIP 6.3V 100UF	
C5882	F2H1C100A009	ELECTROLYTIC CHIP 16V 10UF	
C5883	F1J0J4750005	C CHIP 6.3V 4.7UF	
C5884	F1J0J4750005	C CHIP 6.3V 4.7UF	
C6003	F1H1A105A019	C CHIP 10V 1UF	
C6004	F1H1C104A008	C CHIP 16V 0.1UF	
C6005	F1H1C104A008	C CHIP 16V 0.1UF	
C6006	F1H1C104A008	C CHIP 16V 0.1UF	
C6007	F1H1C104A008	C CHIP 16V 0.1UF	
C6009	F1H1C104A008	C CHIP 16V 0.1UF	
C6010	F1H0J1050012	C CHIP 6.3V 1UF	
C6011	F1H1C104A041	C CHIP 16V 0.1UF	
C6012	ECJ1VC1H102J	C CHIP 50V 1000PF	
C6013	F1H0J1050012	C CHIP 6.3V 1UF	
C6014	F1H1C104A041	C CHIP 16V 0.1UF	
C6015	F2H0G101A005	ELECTROLYTIC CHIP 4V 100UF	
C6016	F1H1C104A008	C CHIP 16V 0.1UF	
C6017	F1H1C104A008	C CHIP 16V 0.1UF	
C6018	F1H0J1050012	C CHIP 6.3V 1UF	
C6019	F1H1H103A219	C CHIP 50V 0.01UF	
C6020	F1H1C104A008	C CHIP 16V 0.1UF	
C6021	F1H1H103A219	C CHIP 50V 0.01UF	
C6023	F1H1C104A008	C CHIP 16V 0.1UF	
C6025	EEEHP0J470P	ELECTROLYTIC 6.3V 47UF	
C6026	F1H1A105A019	C CHIP 10V 1UF	
C6028	F1H1C104A008	C CHIP 16V 0.1UF	
C6029	F1H1C104A008	C CHIP 16V 0.1UF	
C6030	F1H1A105A019	C CHIP 10V 1UF	
C6031	F1H1C104A008	C CHIP 16V 0.1UF	
C6032	F1H1C104A008	C CHIP 16V 0.1UF	
C6033	F1H1C104A008	C CHIP 16V 0.1UF	
C6035	F1H1C104A041	C CHIP 16V 0.1UF	
C6037	F1H1H101A230	C CHIP 50V 100PF	
C6038	F1H1C104A008	C CHIP 16V 0.1UF	
C6039	F1H1H103A219	C CHIP 50V 0.01UF	
C6040	ECJ2FB0J106M	C CHIP 6.3V 10UF	
C6041	ECJ2FB0J106M	C CHIP 6.3V 10UF	
C6042	F1H1C104A041	C CHIP 16V 0.1UF	
C6043	F1H1C104A041	C CHIP 16V 0.1UF	
C6044	F1H1C104A008	C CHIP 16V 0.1UF	
C6045	ECJ1VC1H101J	C CHIP 50V 100PF	
C6046	F1H1A105A019	C CHIP 10V 1UF	
C6048	F1H1C104A008	C CHIP 16V 0.1UF	
C6051	F1H1H102A219	C CHIP 50V 1000PF	
C6052	F1H1H102A219	C CHIP 50V 1000PF	
C6053	F1H1H102A219	C CHIP 50V 1000PF	
C6054	F1H1H102A219	C CHIP 50V 1000PF	
C6056	ECJ1VB0J475K	C CHIP 6.3V 4.7UF	
C6057	F1H1H102A219	C CHIP 50V 1000PF	
C6058	F1H1H102A219	C CHIP 50V 1000PF	
C6059	F1H1H471A737	C CHIP 50V 470PF	
C6060	F1H1H5610004	C CHIP 50V 560PF	
C6061	F1H0J1050012	C CHIP 6.3V 1UF	
C6062	F1H1A105A019	C CHIP 10V 1UF	
C6063	F1H1H102A219	C CHIP 50V 1000PF	
C6064	F1H1H102A219	C CHIP 50V 1000PF	
C6065	F1H1H102A219	C CHIP 50V 1000PF	
C6066	F1H1H102A219	C CHIP 50V 1000PF	
C6069	F1H1H102A219	C CHIP 50V 1000PF	
C6070	F1H1H102A219	C CHIP 50V 1000PF	
C6071	F1H1H102A219	C CHIP 50V 1000PF	
C6072	F1H1H102A219	C CHIP 50V 1000PF	
C6075	F1H1H102A219	C CHIP 50V 1000PF	
C6076	F1H1H102A219	C CHIP 50V 1000PF	
C6101	F1H1C104A041	C CHIP 16V 0.1UF	
C6103	F1H1C104A008	C CHIP 16V 0.1UF	
C6108	F1H1H102A219	C CHIP 50V 1000PF	
C6109	F1H1H102A219	C CHIP 50V 1000PF	
C6110	F1H1H102A219	C CHIP 50V 1000PF	
C6111	F1H1H102A219	C CHIP 50V 1000PF	

Ref. No.	Part No.	Part Name & Description	Remarks
C6112	F1H1H102A219	C CHIP 50V 1000PF	
C6113	F1H1H102A219	C CHIP 50V 1000PF	
C6114	F1H1H102A219	C CHIP 50V 1000PF	
C6115	ECJ1VB1C104K	C CHIP 16V 0.1UF	

FILTERS

Ref. No.	Part No.	Part Name & Description	Remarks
FL3005	J0HAAB000036	FILTER FOR EMI / EMC (LCR FILTERS)	
FL3006	J0HAAB000036	FILTER FOR EMI / EMC (LCR FILTERS)	
FL3008	J0HAAB000036	FILTER FOR EMI / EMC (LCR FILTERS)	
FL3009	J0HAAB000036	FILTER FOR EMI / EMC (LCR FILTERS)	
FL3010	J0HAAB000036	FILTER FOR EMI / EMC (LCR FILTERS)	
FL3011	J0HAAB000036	FILTER FOR EMI / EMC (LCR FILTERS)	
FL3014	ELKE103FA	COIL CHIP EMI	
FL3015	ELKE103FA	COIL CHIP EMI	
FL3016	ELKE103FA	COIL CHIP EMI	
FL6000	ELKE103FA	COIL CHIP EMI	
FL6002	ELKE103FA	COIL CHIP EMI	
FL6003	ELKE103FA	COIL CHIP EMI	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L1100	G1C220ZA0128	COIL CHIP 22UH	
L1101	G1C220ZA0128	COIL CHIP 22UH	
L1104	G1C100M00023	COIL CHIP 10UH	
L1106	G1C100ZA0083	COIL CHIP 10UH	
L1108	G1C100ZA0083	COIL CHIP 10UH	
L5001	J0JHC0000078	EMI FILTER CHIP	
L5002	J0JHC0000078	EMI FILTER CHIP	
L5003	J0JCC0000241	FILTER FOR EMI / EMC	
L5004	J0JHC0000078	EMI FILTER CHIP	
L5005	J0JHC0000078	EMI FILTER CHIP	
L5006	J0JHC0000078	EMI FILTER CHIP	
L5007	J0JHC0000078	EMI FILTER CHIP	
L5008	J0JHC0000078	EMI FILTER CHIP	
L5009	J0JHC0000078	EMI FILTER CHIP	
L5010	J0JHC0000078	EMI FILTER CHIP	
L5012	J0JHC0000078	EMI FILTER CHIP	
L5013	J0JCC0000241	FILTER FOR EMI / EMC	
L5014	J0JCC0000241	FILTER FOR EMI / EMC	
L5015	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L5016	G1C101KA0055	COIL CHIP 100UH	
L5017	J0JHC0000078	EMI FILTER CHIP	
L5018	J0JHC0000068	EMI FILTER CHIP	
L5019	J0JHC0000068	EMI FILTER CHIP	
L5020	J0JHC0000068	EMI FILTER CHIP	
L5700	J0JBC0000080	FILTER FOR EMI / EMC	
L5701	J0JBC0000080	FILTER FOR EMI / EMC	
L5707	J0JBC0000014	BEAD INDUCTOR	
L5708	J0JBC0000014	BEAD INDUCTOR	
L5709	J0JBC0000080	FILTER FOR EMI / EMC	
L5710	G1C100KA0055	COIL CHIP 10UH	
L5800	ELJFA330KFB	COIL CHIP 33UH	
L5801	J0JHC0000078	EMI FILTER CHIP	
L5802	J0JHC0000078	EMI FILTER CHIP	
L5803	J0JHC0000078	EMI FILTER CHIP	
L5804	J0JHC0000078	EMI FILTER CHIP (D,E,F,G,H)	
L5805	J0JHC0000078	EMI FILTER CHIP (D,E,F,G,H)	
L5806	J0JHC0000078	EMI FILTER CHIP	
L5807	J0JHC0000078	EMI FILTER CHIP	
L5808	J0JHC0000078	EMI FILTER CHIP	
L5809	J0JHC0000078	EMI FILTER CHIP	
L5810	J0JHC0000078	EMI FILTER CHIP	
L5811	J0JHC0000078	EMI FILTER CHIP (D,E,F,G,H)	
L5812	J0JBC0000080	FILTER FOR EMI / EMC	
L5813	J0JBC0000080	FILTER FOR EMI / EMC	
L6001	J0JHC0000078	EMI FILTER CHIP	
L6003	J0JHC0000078	EMI FILTER CHIP	
L6004	J0JHC0000078	EMI FILTER CHIP	
L6005	J0JHC0000078	EMI FILTER CHIP	
L6011	J0JHC0000078	EMI FILTER CHIP	
L6012	J0JBC0000080	FILTER FOR EMI / EMC	
L6013	J0JBC0000080	FILTER FOR EMI / EMC	
L6014	J0JBC0000080	FILTER FOR EMI / EMC	
L6015	J0JHC0000078	EMI FILTER CHIP	
L6022	J0JBC0000080	FILTER FOR EMI / EMC	
L6023	J0JBC0000080	FILTER FOR EMI / EMC	
L6024	J0JBC0000014	BEAD INDUCTOR	
L6025	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L6026	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L6027	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L6028	J0JBC0000014	BEAD INDUCTOR	

CRYSTAL OSCILLATOR

Ref. No.	Part No.	Part Name & Description	Remarks
X5000	H0J270500087	CRYSTAL OSCILLATOR CHIP	
X5800	H0J283500016	CRYSTAL OSCILLATOR CHIP	
X6000	H2D400400012	CRYSTAL OSCILLATOR	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN3000	K1KA65BA0138	CONNECTOR 65P	
CN3001	K1FY115B0005	B-SUB JACK SOCKET	
CN5700	K1KA20B00153	CONNECTOR 20P	
CN5800	K1FA119E0002	HDMI JACK SOCKET (D,E,F,G,H)	
CN5801	K1FA119E0002	HDMI JACK SOCKET	
CN6000	K1KA14BA0051	CONNECTOR 14P	
CN6001	K1KA09BA0050	CONNECTOR 9P	
CN6002	K1KA03BA0270	CONNECTOR 3P	
CN6003	K1KBB0A00006	CONNECTOR 110P	
CN6004	K1KA05BA0047	CONNECTOR 5P	
CN6005	K1KA04BA0047	CONNECTOR 4P	
CN6008	K1KA08B00256	CONNECTOR 8P	

JACK

Ref. No.	Part No.	Part Name & Description	Remarks
JK5000	K2HC103B0063	STEREO MINI JACK SOCKET	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
701	LSSC0878	MAIN SHIELD CASE TOP	
702	LSSC0865	MAIN SHIELD CASE BOTTOM	

17.5.2. BASE P.C.B.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
----------	A
----------	B
----------	C
----------	D
----------	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC3101	C1AB00002123	IC, LINEAR	
IC4002	AN15861A-VT	IC, LINEAR	

Ref. No.	Part No.	Part Name & Description	Remarks
IC4501	C0FBAK000019	IC, LINEAR	
IC4503	C0JBAB000620	IC, LOGIC	E.S.D.
IC4504	C1AB00002568	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q3101	2SB0709ARL	TRANSISTOR SI PNP CHIP	
Q3102	2SB0709ARL	TRANSISTOR SI PNP CHIP	
Q3103	2SB0709ARL	TRANSISTOR SI PNP CHIP	
Q3107	UNR521400L	TRANSISTOR SI NPN CHIP	
Q3501	2SB0709ARL	TRANSISTOR SI PNP CHIP	
Q3502	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q3503	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q4002	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q4003	2SD0601ARL	TRANSISTOR SI NPN CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R1273	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R3101	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3102	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3103	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3105	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R3106	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R3107	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3108	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3109	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3110	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3111	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3112	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3116	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R3117	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R3118	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3120	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3122	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3124	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R3128	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R3132	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R3136	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3137	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3138	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3139	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3140	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3143	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3144	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3145	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3146	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3147	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3148	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3149	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3150	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3151	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3152	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3153	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3154	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3155	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3156	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3157	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3161	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3162	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3163	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3164	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R3170	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3171	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3175	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3176	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3177	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3178	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3179	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3180	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3197	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R3501	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3502	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3503	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3504	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3505	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3506	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3507	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3508	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3509	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3510	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3511	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3512	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3516	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3517	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R3518	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3519	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3520	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3521	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3522	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3523	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3524	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3525	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3528	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3529	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3530	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3531	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3532	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3533	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3534	ERJ3EKF75R0V	MGF CHIP 1/16W 75	
R3535	ERJ3EKF75R0V	MGF CHIP 1/16W 75	
R3536	ERJ3EKF75R0V	MGF CHIP 1/16W 75	
R3537	ERJ3EKF75R0V	MGF CHIP 1/16W 75	
R3538	ERJ3EKF75R0V	MGF CHIP 1/16W 75	
R3539	ERJ3EKF75R0V	MGF CHIP 1/16W 75	
R3543	ERJ3GEYJ184V	MGF CHIP 1/16W 180K (D,E,F,G,H)	
R3544	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3545	ERJ3GEYJ184V	MGF CHIP 1/16W 180K	
R3546	ERJ3GEYJ184V	MGF CHIP 1/16W 180K (D,E,F,G,H)	
R3551	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R3552	ERJ3GEYJ105V	MGF CHIP 1/16W 1M	
R3553	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R3554	ERJ3GEYJ274V	MGF CHIP 1/16W 270K	
R3555	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R3556	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R3558	ERJ6ENF75R0V	MGF CHIP 1/10W 75	
R3560	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R3561	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3562	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R3563	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R3564	ERJ6GEYJ184V	MGF CHIP 1/10W 180K	
R3565	ERJ6GEYJ184V	MGF CHIP 1/10W 180K	
R3566	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R4001	ERJ3GEYJ102V	MGF CHIP 1/16W 1K (D,E,F,G,H)	
R4002	ERJ3GEYJ102V	MGF CHIP 1/16W 1K (D,E,F,G,H)	
R4003	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4004	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4005	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4006	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4007	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4008	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4010	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4011	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4012	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4013	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4014	ERJ3GEYJ681V	MGF CHIP 1/16W 680	
R4015	ERJ3GEYJ681V	MGF CHIP 1/16W 680	
R4031	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R4034	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R4035	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R4036	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4037	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	

Ref. No.	Part No.	Part Name & Description	Remarks
R4041	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4042	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4043	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4044	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4045	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4046	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4047	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R4048	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R4049	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R4050	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R4051	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R4052	ERJ3GEYJ221V	MGF CHIP 1/16W 220	
R4053	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R4054	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4055	ERJ3GEYJ681V	MGF CHIP 1/16W 680	
R4056	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R4057	ERJ3GEYJ681V	MGF CHIP 1/16W 680	
R4058	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R4059	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R4060	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R4063	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R4501	ERJ3GEYJ822V	MGF CHIP 1/16W 8.2K	
R4502	ERJ3GEYJ822V	MGF CHIP 1/16W 8.2K	
R4503	ERJ3GEYJ272V	MGF CHIP 1/16W 2.7K	
R4504	ERJ3GEYJ272V	MGF CHIP 1/16W 2.7K	
R4505	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R4506	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R4507	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R4508	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R4509	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R4510	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R4512	ERJ3GEYJ105V	MGF CHIP 1/16W 1M	
R4513	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R4514	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R4515	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R4516	ERJ3GEYJ332V	MGF CHIP 1/16W 3.3K	
R4517	ERJ14YJ100U	MGF CHIP 1/4W 10	
R4518	ERJ14YJ100U	MGF CHIP 1/4W 10	
R4519	ERJ14YJ100U	MGF CHIP 1/4W 10	
R4520	ERJ14YJ100U	MGF CHIP 1/4W 10	
R4525	ERJ14YJ6R2U	MGF CHIP 1/4W 6.2	
R4526	ERJ14YJ6R2U	MGF CHIP 1/4W 6.2	
R4530	ERJ14YJ6R2U	MGF CHIP 1/4W 6.2	
R4531	ERJ14YJ6R2U	MGF CHIP 1/4W 6.2	
R4534	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
JS3101	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
JS3102	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
JS3111	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
JS3112	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
JS3115	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
JS3116	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C3101	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3102	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3103	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3104	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C3105	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C3106	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C3107	F1H1A105A025	C CHIP 10V 1UF	
C3108	F1H1A105A025	C CHIP 10V 1UF	
C3109	F1H1C104A008	C CHIP 16V 0.1UF	
C3111	F1H1C104A008	C CHIP 16V 0.1UF	
C3113	F1H1C104A008	C CHIP 16V 0.1UF	
C3114	F1H1C104A008	C CHIP 16V 0.1UF	
C3115	F1H1C104A008	C CHIP 16V 0.1UF	
C3116	F1H1C104A008	C CHIP 16V 0.1UF	
C3123	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3124	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3125	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3126	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3127	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3128	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3129	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3131	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3132	ECJ3YB1A106M	C CHIP 10V 10UF	
C3133	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C3134	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3135	F2A1C2210038	ELECTROLYTIC 16V 220UF	
C3137	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3138	ECA1HM220B	ELECTROLYTIC 50V 22UF	
C3139	ECJ3YB1A106M	C CHIP 10V 10UF	
C3140	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3141	ECJ1VC1H080C	C CHIP 50V 8PF	
C3142	ECJ1VC1H080C	C CHIP 50V 8PF	
C3143	ECJ1VC1H080C	C CHIP 50V 8PF	
C3147	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3148	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3501	F1H1A105A025	C CHIP 10V 1UF	
C3502	F1H1A105A025	C CHIP 10V 1UF	
C3503	F1H1A105A025	C CHIP 10V 1UF	
C3504	F1H1A105A025	C CHIP 10V 1UF	
C3505	F1H1A105A025	C CHIP 10V 1UF	
C3506	F1H1A105A025	C CHIP 10V 1UF	
C3507	F1H1A105A025	C CHIP 10V 1UF	
C3508	F1H1A105A025	C CHIP 10V 1UF	
C3509	F1H1A105A025	C CHIP 10V 1UF	
C3510	F1H1A105A025	C CHIP 10V 1UF	
C3511	F1H1A105A025	C CHIP 10V 1UF	
C3512	F1H1A105A025	C CHIP 10V 1UF	
C3513	F1H1A105A025	C CHIP 10V 1UF	
C3514	F1H1A105A025	C CHIP 10V 1UF	
C3515	F1H1A105A025	C CHIP 10V 1UF	
C3516	F1H1A105A025	C CHIP 10V 1UF	
C3517	F1H1A105A025	C CHIP 10V 1UF	
C3518	F1H1A105A025	C CHIP 10V 1UF	
C3528	F1H1A105A025	C CHIP 10V 1UF (D,E,F,G,H)	
C3529	F1H1A105A025	C CHIP 10V 1UF (D,E,F,G,H)	
C3530	F1H1A105A025	C CHIP 10V 1UF	
C3531	F1H1A105A025	C CHIP 10V 1UF	
C3532	ECA1AM102B	ELECTROLYTIC 10V 1000UF	
C3547	ECJ1VF1C105Z	C CHIP 16V 1UF	
C3548	ECJ2FB1A225K	C CHIP 10V 2.2UF	
C3549	ECJ2FB1A225K	C CHIP 10V 2.2UF	
C4005	F1H1A105A025	C CHIP 10V 1UF	
C4006	F1H1A105A025	C CHIP 10V 1UF	
C4007	F1H1A105A025	C CHIP 10V 1UF	
C4008	F1H1A105A025	C CHIP 10V 1UF	
C4009	F1H1A105A025	C CHIP 10V 1UF	
C4010	F1H1A105A025	C CHIP 10V 1UF	
C4011	F1H1A105A025	C CHIP 10V 1UF	
C4012	F1H1A105A025	C CHIP 10V 1UF	
C4013	ECJ1VF1C105Z	C CHIP 16V 1UF (A,B,C)	
C4014	ECJ1VF1C105Z	C CHIP 16V 1UF (A,B,C)	
C4033	ECEA1CKA101	ELECTROLYTIC 16V 100UF	
C4034	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4035	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4036	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4037	ECEA1CKA220	ELECTROLYTIC 16V 22UF	
C4038	ECEA1CKA100	ELECTROLYTIC 16V 10UF	
C4039	ECJ1VF1C105Z	C CHIP 16V 1UF	
C4040	ECJ1VF1C105Z	C CHIP 16V 1UF	
C4041	F1H1C104A008	C CHIP 16V 0.1UF	
C4042	F1H1C104A008	C CHIP 16V 0.1UF	
C4045	ECJ1VF1C105Z	C CHIP 16V 1UF	
C4501	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7UF	
C4502	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7UF	
C4503	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7UF	
C4504	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7UF	
C4505	ECEA1EKA4R7	ELECTROLYTIC 25V 4.7UF	
C4506	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4507	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4508	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4509	ECJ2VF1H104Z	C CHIP 50V 0.1UF	
C4510	ECJ1VC1H100C	C CHIP 50V 10PF	

Ref. No.	Part No.	Part Name & Description	Remarks
C4511	ECJ1VC1H100C	C CHIP 50V 10PF	
C4512	F1K1H1050002	C CHIP 50V 1UF	
C4513	F1K1H1050002	C CHIP 50V 1UF	
C4514	F1K1H1050002	C CHIP 50V 1UF	
C4515	F1K1H1050002	C CHIP 50V 1UF	
C4516	F1K1H1050002	C CHIP 50V 1UF	
C4517	F1K1H1050002	C CHIP 50V 1UF	
C4518	F1K1H1050002	C CHIP 50V 1UF	
C4519	ECJ1VC1H221J	C CHIP 50V 220PF	
C4520	ECJ1VB1H122K	C CHIP 50V 1200PF	
C4521	ECJ2VF1C105Z	C CHIP 16V 1UF	
C4522	ECJ2VF1C105Z	C CHIP 16V 1UF	
C4523	ECEA0JKA220	ELECTROLYTIC 6.3V 22UF	
C4524	ECJ1VB1H681K	C CHIP 50V 680PF	
C4525	ECJ1VB1H681K	C CHIP 50V 680PF	
C4526	ECJ1VB1H681K	C CHIP 50V 680PF	
C4527	ECJ1VB1H681K	C CHIP 50V 680PF	
C4528	ECQV1H684JL3	POLYESTER 50V 0.68UF	
C4529	ECQV1H684JL3	POLYESTER 50V 0.68UF	
C4532	ECQV1H684JL3	POLYESTER 50V 0.68UF	
C4533	ECQV1H684JL3	POLYESTER 50V 0.68UF	
C4534	ECJ1VB1H102K	C CHIP 50V 1000PF	
C4535	ECJ1VB1H102K	C CHIP 50V 1000PF	
C4536	ECJ1VB1H102K	C CHIP 50V 1000PF	
C4537	F1K1H1050002	C CHIP 50V 1UF	
C4538	F2A1H102A531	ELECTROLYTIC 50V 1000UF	
C4539	F1H1H104A748	C CHIP 50V 0.1UF	
C4540	F1H1H104A748	C CHIP 50V 0.1UF	
C4541	F1H1H104A748	C CHIP 50V 0.1UF	
C4542	F1H1H104A748	C CHIP 50V 0.1UF	
C4544	F1K1H1050002	C CHIP 50V 1UF	
C4545	F1H1H104A748	C CHIP 50V 0.1UF	
C4546	F1H1H104A748	C CHIP 50V 0.1UF	
C4547	F1H1H104A748	C CHIP 50V 0.1UF	
C4548	F1H1H104A748	C CHIP 50V 0.1UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L3101	J0JHC0000031	EMI FILTER CHIP	
L3102	J0JHC0000031	EMI FILTER CHIP	
L4004	J0JHC0000078	EMI FILTER CHIP	
L4501	J0JJC0000003	COIL	
L4502	J0JJC0000003	COIL	
L4504	G0A220ZA0030	COIL 22UH	
L4505	G0A220ZA0030	COIL 22UH	
L4506	G0A220ZA0030	COIL 22UH	
L4507	G0A220ZA0030	COIL 22UH	
L4508	G0C101JA0055	COIL 100UH	

CRYSTAL OSCILLATOR

Ref. No.	Part No.	Part Name & Description	Remarks
X4501	H0A122500004	CRYSTAL OSCILLATOR	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN3101	LSJA0586	CONNECTOR CABLE W/PLUG	
CN3102	LSJA0585	CONNECTOR CABLE W/PLUG	
CN3103	K1KB65A00002	CONNECTOR 65P	
CN4501	K1KA02A00735	CONNECTOR 2P	
CN4502	LSJA0600	CONNECTOR CABLE W/PLUG	

JACKS

Ref. No.	Part No.	Part Name & Description	Remarks
JK3501	K1U930B00001	AUDIO/VIDEO/S-VIDEO JACK SOCKET	
JK3502	K2HA920B0001	AUDIO/VIDEO JACK SOCKET	
JK3503	K2HA4YYB0001	HDMI AUDIO JACK SOCKET (D,E,F,G,H)	
JK3504	K2HA2YYB0003	HDMI AUDIO JACK SOCKET (A,B,C)	

17.5.3. POWER SWITCH P.C.B.

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q6802	2SB1218A0L	TRANSISTOR SI PNP CHIP	
or Q6802	B1ADCF000063	TRANSISTOR SI PNP CHIP	
or Q6802	B1ADCF000075	TRANSISTOR SI PNP CHIP	
Q6803	2SB1218A0L	TRANSISTOR SI PNP CHIP	
or Q6803	B1ADCF000063	TRANSISTOR SI PNP CHIP	
or Q6803	B1ADCF000075	TRANSISTOR SI PNP CHIP	
Q6804	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6804	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q6805	2SD1819A0L	TRANSISTOR SI NPN CHIP	
or Q6805	B1ABCF000020	TRANSISTOR SI NPN CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D6801	B3AGA0000072	LIGHT EMITTING DIODE GREEN	
D6802	B3AAA0000538	LIGHT EMITTING DIODE RED	
D6803	B3AAA0000538	LIGHT EMITTING DIODE RED	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R6801	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6802	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6803	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R6804	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6805	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6806	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6807	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6808	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6809	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6810	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R6811	ERJ3GEYJ471V	MGF CHIP 1/16W 470	
R6812	ERJ3GEYJ471V	MGF CHIP 1/16W 470	

PIN HEADER

Ref. No.	Part No.	Part Name & Description	Remarks
CN6801	K1KA08BA0061	CONNECTOR 8P	

SWITCH

Ref. No.	Part No.	Part Name & Description	Remarks
SW6801	EVQ11G05R	SWITCH PUSH	

17.5.4. FRONT JACK/OPERATION P.C.B.

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R3901	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3902	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3903	ERJ3GEYJ750V	MGF CHIP 1/16W 75	
R3904	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6701	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R6702	ERJ3GEYJ122V	MGF CHIP 1/16W 1.2K	
R6703	ERJ3GEYJ152V	MGF CHIP 1/16W 1.5K	
R6704	ERJ3GEYJ272V	MGF CHIP 1/16W 2.7K	
R6705	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R6706	ERJ3GEYJ183V	MGF CHIP 1/16W 18K	
R6707	ERJ3GEYJ122V	MGF CHIP 1/16W 1.2K	

CAPACITOR

Ref. No.	Part No.	Part Name & Description	Remarks
C6701	ECEA0JKS470I	ELECTROLYTIC 6.3V 47UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L3901	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L3902	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L3903	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L3904	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L3905	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
L6701	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN3901	K1KA12BA0062	CONNECTOR 12P	
CN6701	K1KA07BA0061	CONNECTOR 7P	

SWITCHES

Ref. No.	Part No.	Part Name & Description	Remarks
SW6702	EVQ11G05R	SWITCH PUSH	
SW6703	EVQ11G05R	SWITCH PUSH	
SW6704	EVQ11G05R	SWITCH PUSH	
SW6705	EVQ11G05R	SWITCH PUSH	
SW6706	EVQ11G05R	SWITCH PUSH	
SW6707	EVQ11G05R	SWITCH PUSH	
SW6708	EVQ11G05R	SWITCH PUSH	

JACK

Ref. No.	Part No.	Part Name & Description	Remarks
JK3901	K1U412A00008	AUDIO/VIDEO/S-VIDEO JACK SOCKET	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
RM6701	PNA4618M14VT	INFRARED RECEIVER UNIT	

17.5.5. SD CARD P.C.B.

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R9001	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9002	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9003	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9004	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9005	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9006	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9007	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9008	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9069	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9070	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9071	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R9072	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R9073	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R9074	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R9075	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9076	ERJ3GEYJ181V	MGF CHIP 1/16W 180	
R9078	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C9016	ECEA0JKA470	ELECTROLYTIC 6.3V 47UF	
C9021	F1H1C104A008	C CHIP 16V 0.1UF	

COIL

Ref. No.	Part No.	Part Name & Description	Remarks
L9003	ERJ6GEY0R00V	MGF CHIP 1/10W 0	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN9003	LSJA0587	CONNECTOR CABLE W/PLUG	
CN9005	K1NA09E00078	SD UNIT	

17.5.6. THERMISTOR 2 P.C.B.

RESISTOR

Ref. No.	Part No.	Part Name & Description	Remarks
R2821	D4CE31330001	THERMISTOR	⚠ PSEC

PIN HEADER

Ref. No.	Part No.	Part Name & Description	Remarks
P2821	K1KA02AA0300	CONNECTOR 2P	PSEC

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
762	LSJA0533	CONNECTOR CABLE W/PLUG	PSEC

17.5.7. COVER SWITCH P.C.B.

PIN HEADER

Ref. No.	Part No.	Part Name & Description	Remarks
P2912	LSJA0551	CONNECTOR CABLE W/PLUG	PSEC

SWITCH

Ref. No.	Part No.	Part Name & Description	Remarks
SW2911	K0L1BA000114	SWITCH	PSEC

17.5.8. ELECTRICAL PARTS LOCATED ON CHASSIS

FUSE & PROTECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
F001	LSJA0583	THERMAL FUSE UNIT	⚠ PSEC

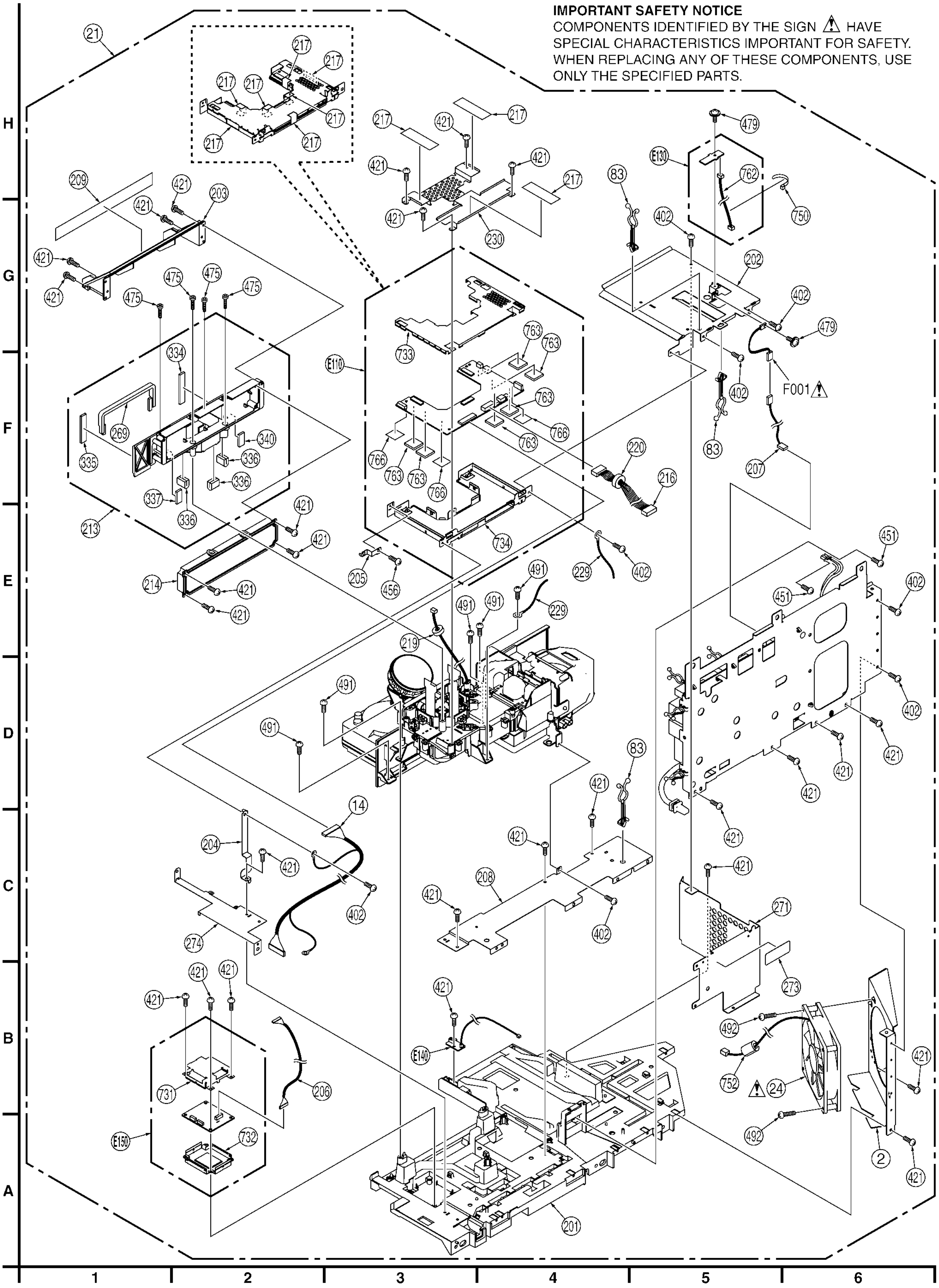
18 Exploded Views (Projection Section)

18.1. PROJECTION SECTION

❶ PROJECTION SECTION

Note: Parts with no Ref. No. in "EXPLODED VIEW" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.

IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.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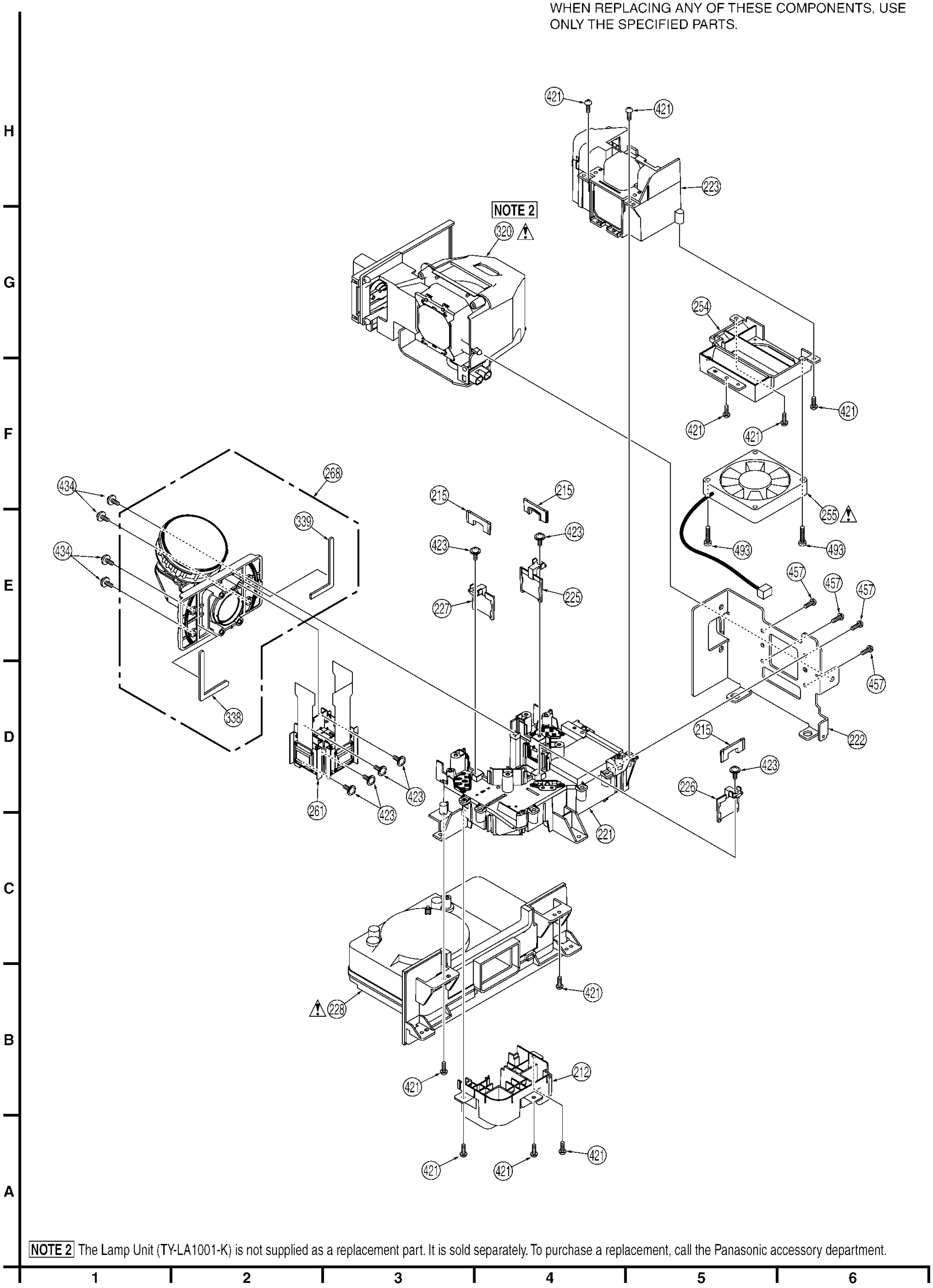
18.2. OPTICAL UNIT SECTION

❷ OPTICAL UNIT SECTION

IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.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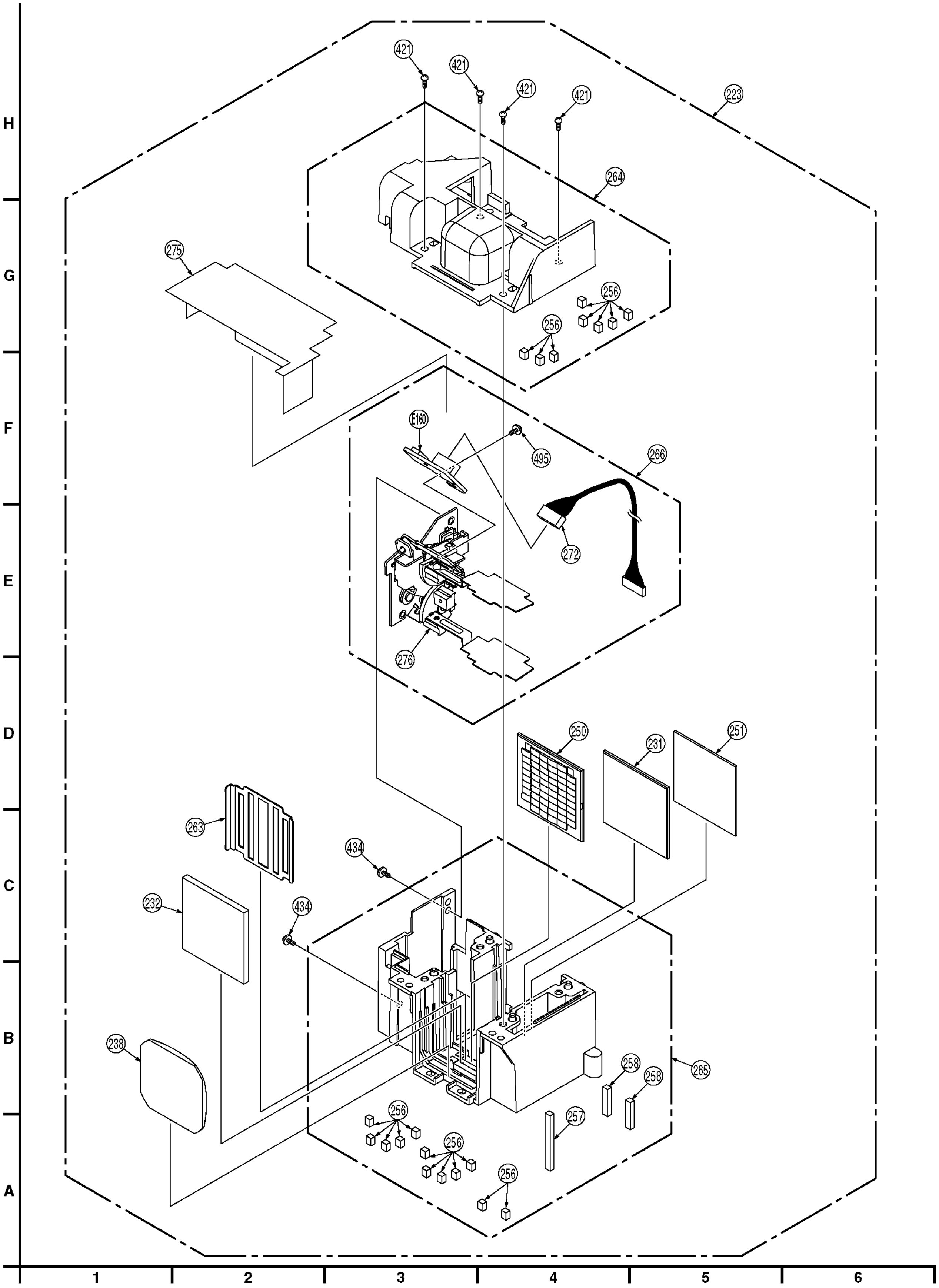
NOTE 2 The Lamp Unit (TY-LA1001-K) is not supplied as a replacement part. It is sold separately. To purchase a replacement, call the Panasonic accessory department.

18.3. OPTICAL IRIS UNIT SECTION

❸ OPTICAL IRIS UNIT SECTION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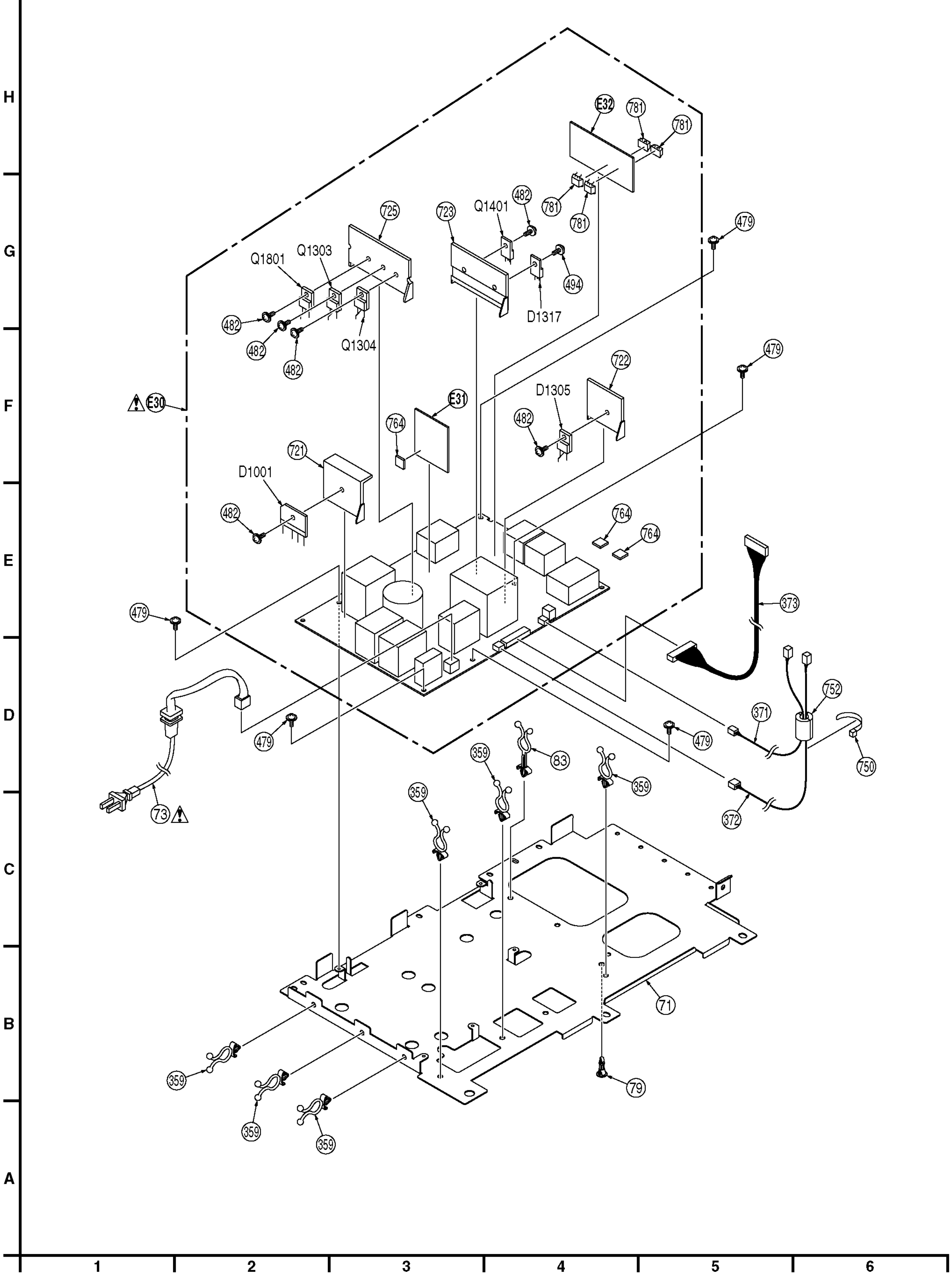
18.4. POWER UNIT SECTION

④ POWER UNIT SECTION

IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SPECIFIED PARTS.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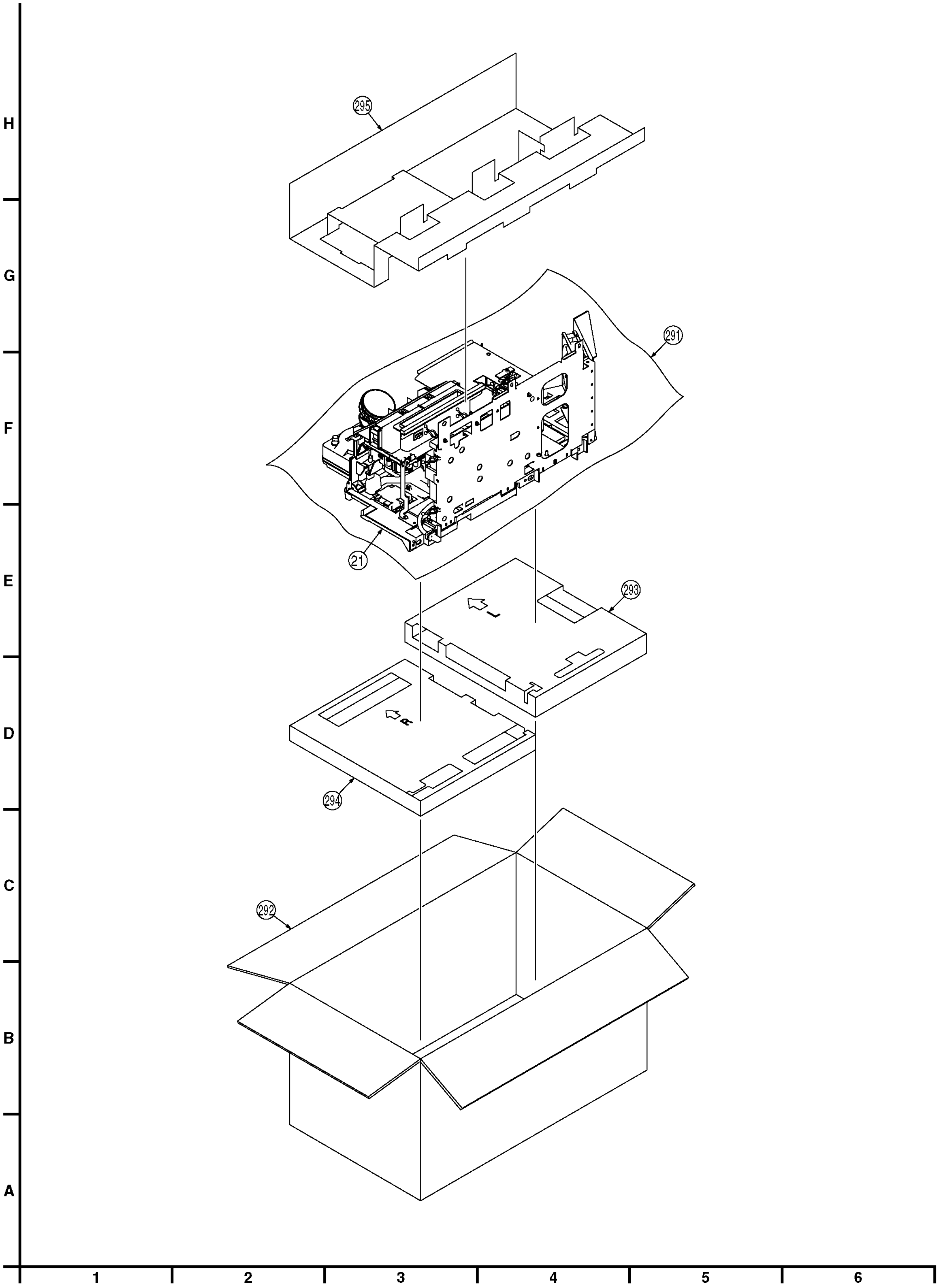
18.5. PACKING PARTS SECTION

❺ PACKING PARTS SECTION



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19 Replacement Parts List (Projection Section)

BEFORE REPLACING PARTS, READ THE FOLLOWING:

19.1. REPLACEMENT NOTES

19.1.1. General Notes

1. Use only original replacement parts:

   To maintain original function and reliability of repaired units, use only original replacement parts which are listed with their part numbers in the parts list.
2. **IMPORTANT SAFETY NOTICE**

   Components identified by the sign ⚠ have special characteristics important for safety. When replacing any of these components, use only the specified parts.
3. SPECIAL NOTE

   All integrated circuits and many other semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section of this service manual.
4. Parts with no Ref. No. in "EXPLODED VIEWS" are not supplied. And some Ref. No. will be skipped. Be sure to make your orders of replacement parts according to the parts list.
5. Parts different in shape or size may be used. However, only interchangeable parts will be supplied as service replacement parts.
6. Definition of Parts supplier:
   a. All parts are supplied from PSEC.
7. Item numbers with capital letter E (Example: E10, E20,...) in the Ref. No. column are shown in the exploded views.
8. Parts whose Ref. Nos. are the same are interchangeable as replacement parts. Any of these parts may be ordered and used as a replacement part.

19.1.2. Mechaniacl Replacement Notes

1. Section No. of parts shown in Exploded Views are indicated in the Remarks column.
2. Abbreviation

   RTL: Retention Time Limited

   This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
3. After replacing the LCD/Prism Unit (Ref. No. 261), be sure to perform the following adjustment in order.
   a. Full Mirror Adjustment
   b. Polarizer Adjustment
   c. VCOM Adjustment
   d. White Balance Adjustment

   For above adjustments, refer to "Adjustment Procedures 2."
4. After replacing the Polarizer Red Unit (Ref. No. 225), the Polarizer Green Unit (Ref. No. 226), or the Polarizer Blue Unit (Ref. No. 227), be sure to perform the "POLARIZER ADJUSTMENT" in Adjustment Procedures 2 section.

19.1.3. Electrical Replacement Notes

1. Unless otherwise specified;

   All resistors are in Ω, K = 1,000 Ω, M = 1,000 kΩ.
2. Abbreviation

RTL:	Retention Time Limited This indicates that the retention time is limited for this item. After the discontinuation of this item in production, it will no longer be available.
NR:	Non Repairable Board Ass´y
MGF CHIP:	Metal Glaze Film Chip
C CHIP:	Ceramic Chip
COMPLX CMP:	Complex Component
W FLMPRF:	Wirewound Flameproof
C.B.A.:	Circuit Board Assembly
P.C.B.:	Printed Circuit Board
E.S.D.:	Electrostatically Sensitive Devices

3. When replacing 0 Ω resistor, a wire can be substituted for it.
4. Parts with mark "CSP" in the Remarks column are CSP (Chip Size Package) IC.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
- - - - - - - - - -	A
- - - - - - - - - -	B
- - - - - - - - - -	C
- - - - - - - - - -	D
- - - - - - - - - -	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

19.2. MECHANICAL REPLACEMENT PARTS LIST

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
----------	A
----------	B
----------	C
----------	D
----------	E
PT-52LCX66-K	F
PT-56LCX16-K	G
PT-61LCX66-K	H

Definition of Parts supplier:

1. **All parts are supplied from PSEC.**

MECHANICAL REPLACEMENT PARTS

Ref. No.	Part No.	Part Name & Description	Remarks
2	LSMA0926	FAN MOUNT METAL	1
14	LSXA0833	LVDS CABLE	1
21	LSXA0771-HB	PROJECTION UNIT (A,B,D,E,F,G)	1,5 RTL
21	LSXA0827-HB	PROJECTION UNIT (C,H)	1,5 RTL
24	L6FAYYYH0015	FAN 3	1 ⚠
71	LSMA0922	POWER P.C.B. MOUNT METAL	4
73	LSJA0531	AC CORD W/PLUG	4 ⚠
79	KGLS-12RT	SPACER	4
83	TMM5439-1	CLAMPER	1,4
201	LSMP0515	ENGINE FRAME	1
202	LSMA0942	LAMP TOP PANEL	1
203	LSXA0657	TOP DUCT 2 UNIT	1
204	LSSC0883	LCD DRIVE GROUNDING PLATE E,STEEL	1
205	LSSC0881	LCD DRIVE GROUNDING PLATE T,STEEL	1
206	LSJA0603	CONNECTOR CABLE W/PLUG	1
207	LSJA0599	CONNECTOR CABLE W/PLUG	1
208	LSSC0864	ENGINE FRAME PLATE R,STEEL	1
209	LSMF0299	SEALING TAPE 4	1
212	LSXA0601	DUCT UNIT	2
213	LSXA0648	TOP DUCT 1 UNIT	1
214	LSMP0478	FILTER CASE UNIT	1
215	LSXA0609	JOINT PIECE UNIT	2
216	LSJA0597	CONNECTOR CABLE W/PLUG	1
217	LSGQ0211	AL TAPE	1
219	J0KE00000059	FERRITE CORE	1
220	J0KA00000044	FILTER FOR EMI / EMC (CORES)	1
221	LSXA0753	OPTICAL BLOCK UNIT	2
222	LSMA0941	LAMP HOLDER PLATE,STEEL	2
223	LSXA0757	OPTICAL IRIS UNIT	2,3
225	LSXA0758	POLARIZER RED UNIT	2
226	LSXA0759	POLARIZER GREEN UNIT	2
227	LSXA0760	POLARIZER BLUE UNIT	2
228	LSMP0534	FAN CASE	2 ⚠
229	CS-7U	CLIP	1
230	LSSC0802	LCD SHIELD	1
231	LSDL0313	INTEGRATOR 1	3
232	LSDL0315	P/S CONVERTER	3
238	LSDL0323	CONDENSER LENS	3
250	LSDL0314	INTEGRATOR 2	3
251	LSDL0350	UV/IR FILTER	3
254	LSMP0530	LAMP DUCT	2
255	L6FAYYYH0014	FAN 2	2 ⚠
256	LSMF0055	CUSHION,URETHANE	3
257	LSMF0068	CUSHION,URETHANE	3
258	LSMF0522	CUSHION,URETHANE	3
261	LSVQ0104	LCD/PRISM UNIT	2
263	LSMA0949	AL MASK	3
264	LSXA0754	IRIS TOP COVER UNIT	3
265	LSXA0755	IRIS BOTTOM COVER UNIT *Refer to “Replacement Note for Iris Bottom Cover Unit” in Disassembly and Assembly Instructions.	3
266	LSXA0756	IRIS UNIT	3
268	LSXA0740	PROJECTION LENS	2
269	LSMF0387	TOP DUCT 1 SPONGE 3	1
271	LSMA0940	LAMP SIDE PANEL	1
272	LSJA0604	CONNECTOR CABLE W/PLUG	3
273	LSQL2185	FUSE LABEL	1
274	LSSC0869	ENGINE FRAME PLATE S,STEEL	1
275	LSMF0525	IRIS SHEET	3
276	LSMA0938	IRIS MECHANISM UNIT	3
291	LSPF0199	BAG,POLYETHYLENE	5
292	LSPG2208	PACKING CASE,PAPER (A,B,D,E,F,G)	5
292	LSPG2270	PACKING CASE,PAPER (C,H)	5
293	LSPN0701	BOTTOM PAD B	5
294	LSPN0700	BOTTOM PAD A	5
295	LSPN0702	TOP PAD	5
334	LSMF0385	TOP DUCT 1 SPONGE 1	1
335	LSMF0386	TOP DUCT 1 SPONGE 2	1
336	LSMF0264	TOP DUCT 1 SPONGE 4	1
337	LSMF0388	TOP DUCT 1 SPONGE 5	1
338	LSMF0333	PROJECTION LENS SPONGE 1	2
339	LSMF0334	PROJECTION LENS SPONGE 2	2
340	LSMF0406	TOP DUCT 1 SPONGE 6	1
359	LSGQ0176	CLAMPER	4
371	LSJA0596	CONNECTOR CABLE W/PLUG	4
372	LSJA0598	CONNECTOR CABLE W/PLUG	4
373	LSJA0595	CONNECTOR CABLE W/PLUG	4
402	XTV3+8JFJ	TAPPING SCREW,STEEL	1
421	XTV3+8GFJ	TAPPING SCREW,STEEL	1,2,3
423	XYN26+K8FJK	SCREW W/WASHER,STEEL	2
434	XYN3+F10FJ	SCREW W/WASHER,STEEL	2,3
451	XTW3+8QFJ	TAPPING SCREW,STEEL	1
456	XTV3+6FFJ	TAPPING SCREW,STEEL	1
457	XTS3+10GFJ	TAPPING SCREW,STEEL	2
475	XSN3+20FJ	SCREW,STEEL	1
479	XYE3+FJ8FJ	SCREW W/WASHER,STEEL	1,4
482	XYN3+J8FJ	SCREW W/WASHER,STEEL	4
491	XTV3+10GFJ	TAPPING SCREW,STEEL	1
492	XTV3+30JFJ	TAPPING SCREW,STEEL	1
493	XTV3+16GFJ	TAPPING SCREW,STEEL	2
494	XYN3+J10FJ	SCREW,W/WASHER,STEEL	4
495	XYN2+F5FJ	SCREW W/WASHER,STEEL	3
721	LSEK0721	HEAT SINK UNIT	4
722	LSEK0723	HEAT SINK UNIT	4
723	LSEK0724	HEAT SINK UNIT	4
725	LSSC0917	HEAT SINK	4
731	LSSC0884	IRIS SHIELD CASE TOP,STEEL	1
732	LSSC0885	IRIS SHIELD CASE BOTTOM,STEEL	1
733	LSSC0880	LCD DRIVE SHIELD CASE TOP,STEEL	1
734	LSSC0879	LCD DRIVE SHIELD CASE BOTTOM,STEEL	1
750	VZFS0006	CLAMPER	1,4
752	LSLQ0307	FERRITE CORE	1,4
762	LSJA0533	CONNECTOR CABLE W/PLUG	1
763	LSMG0141	THERCOON SHEET	1
764	VMTS0059	CUSHION,RUBBER	4
766	LSMG0173	THERCOON SHEET	1
781	B1DFHM000005	TRANSISTOR FET	4
E30	LSEP1206A1	POWER P.C.B.	4 ⚠ RTL
E31	LSEP1207A1	POWER CONTROL 1 P.C.B. NR	4
E32	LSEP1208A1	POWER CONTROL 2 P.C.B. NR	4
E110	LSXA0772	LCD DRIVE P.C.B.	1 RTL
E130	LSEP3137B	THERMISTOR 2 P.C.B.	1 RTL
E140	LSEP3160A	COVER SWITCH P.C.B.	1 RTL
E150	LSXA0773	IRIS P.C.B.	1 RTL
E160	LSEP3215A	HALL-S P.C.B.	3 RTL

19.3. OPTIONAL ACCESSORY REPLACEMENT PARTS LIST

19.3.1. LAMP UNIT

Ref. No.2	Part No.	Part Name & Description	Remarks
320	TY-LA1001-K	LAMP UNIT	2 ⚠ NOTE

NOTE:

The Lamp Unit (TY-LA1001-K) is not supplied as a replacement part. It is sold separately. To purchase a replacement, call the Panasonic accessory department.

19.4. ELECTRICAL REPLACEMENT PARTS LIST

Definition of Parts supplier:

1. **All parts are supplied from PSEC.**

PRINTED CIRCUIT BOARD ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Remarks
E30	LSEP1206A1	POWER P.C.B.	⚠ E.S.D. RTL
E31	LSEP1207A1	POWER CONTROL 1 P.C.B. NR	
E32	LSEP1208A1	POWER CONTROL 2 P.C.B. NR	
E110	LSXA0772	LCD DRIVE P.C.B.	E.S.D. RTL
E130	LSEP3137B	THERMISTOR 2 P.C.B.	RTL
E140	LSEP3160A	COVER SWITCH P.C.B.	RTL
E150	LSXA0773	IRIS P.C.B.	E.S.D. RTL
E160	LSEP3215A	HALL-S P.C.B.	RTL

19.4.1. POWER P.C.B.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC1002	C0DAEMB00004	IC, LINEAR	
IC1003	C0DAEMB00004	IC, LINEAR	
IC1401	CNC1S101RLL1	IC, LINEAR	⚠
IC1404	CNC1S101RLL1	IC, LINEAR	⚠
IC1406	CNC1S101RLL1	IC, LINEAR	⚠
IC1407	CNC1S101RLL1	IC, LINEAR	⚠
IC1408	C0DAGJC00001	IC, LINEAR	
IC1409	C0DAGDC00001	IC, LINEAR	
IC1831	C0DAZZZ00021	IC, LINEAR	
IC1901	CNC1S101RLL1	IC, LINEAR	⚠
IC1931	MIP2C20MP1KT	IC, LINEAR	⚠
IC1932	C0DAEMB00004	IC, LINEAR	
IC1933	C0JBAZ002456	IC, LOGIC	E.S.D.
IC1934	C0JBAZ002456	IC, LOGIC	E.S.D.
IC1935	C0JBAC000421	IC, LOGIC	E.S.D.
IC1937	C0CBADE00037	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q1303	B1DAGQ000013	TRANSISTOR FET	⚠
Q1304	B1DAGQ000013	TRANSISTOR FET	⚠
Q1305	B1HFCFA00021	TRANSISTOR ARRAY	
Q1401	B1CARM000002	TRANSISTOR FET	
Q1402	B1ADPC000003	TRANSISTOR SI PNP CHIP	
Q1503	B1DEFM000004	TRANSISTOR FET	
Q1505	B1CEJQ000002	TRANSISTOR FET	
Q1506	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q1507	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q1508	B1CHND000004	TRANSISTOR FET	
Q1509	B1CHND000004	TRANSISTOR FET	
Q1510	B1CBGD000001	TRANSISTOR FET CHIP	
Q1601	B1CFDF000004	TRANSISTOR FET	
Q1602	B1CFDF000004	TRANSISTOR FET	
Q1801	B1CARQ000001	TRANSISTOR FET	⚠
Q1802	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q1804	B1ADPC000003	TRANSISTOR SI PNP CHIP	
Q1903	2SD0601ARL	TRANSISTOR SI NPN CHIP	
Q1904	B1CHGD000006	TRANSISTOR FET	
Q1906	B1CHGD000006	TRANSISTOR FET	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D1001	B0FBBR000037	DIODE SI	⚠
D1301	MA2C18800E	DIODE SI	
D1302	MA2C18800E	DIODE SI	
D1303	MA3X15300L	DIODE SI CHIP	
D1304	MA3X15300L	DIODE SI CHIP	
D1305	B0JBSD000027	DIODE SI	
D1307	MAZ41000MF	DIODE ZENER 10V	
D1309	B0AANM000004	DIODE SI	
D1310	B0AANM000004	DIODE SI	
D1311	B0AANM000004	DIODE SI	
D1312	B0AANM000004	DIODE SI	
D1313	B0AANM000004	DIODE SI	
D1315	B0AANM000004	DIODE SI	
D1317	B0HBRP000007	DIODE SI	
D1318	MAZ40750MF	DIODE ZENER 7.5V	
D1319	MA2J11100L	DIODE SI CHIP	
D1320	MAZ41000MF	DIODE ZENER 10V	
D1321	MAZ40750MF	DIODE ZENER 7.5V	
D1322	MAZ43000MF	DIODE ZENER 30V	
D1323	MAZ43000MF	DIODE ZENER 30V	
D1324	MAZ43000MF	DIODE ZENER 30V	
D1325	MAZ43000MF	DIODE ZENER 30V	
D1326	MA2J11100L	DIODE SI CHIP	
D1327	MAZ41500MF	DIODE ZENER 15V	
D1328	MAZ73000BF	DIODE ZENER 30V	
D1329	MAZ43000MF	DIODE ZENER 30V	
D1330	MAZ43000MF	DIODE ZENER 30V	
D1331	MAZ43000MF	DIODE ZENER 30V	
D1332	MAZ43000MF	DIODE ZENER 30V	
D1403	B0AAPP000006	DIODE SI	
D1404	B0HAMP000092	DIODE SI	
D1405	B0AAPP000006	DIODE SI	
D1406	B0AAPP000006	DIODE SI	
D1505	B2ZAZ0000042	DIODE SI	
D1506	MAZ42000MF	DIODE ZENER 20V	
D1512	MA2C165001VT	DIODE SI	
D1513	MA2C165001VT	DIODE SI	
D1514	MA2C165001VT	DIODE SI	
D1519	B0HAMP000092	DIODE SI	
D1523	MA2C18800E	DIODE SI	
D1524	MA2C18800E	DIODE SI	
D1526	MA2C18800E	DIODE SI	
D1527	MAZ4082NHF	DIODE ZENER 8.2V	
D1528	B0AAMP000003	DIODE SI	
D1529	B0AAMP000003	DIODE SI	
D1530	B0HAMP000092	DIODE SI	
D1531	B0AANM000004	DIODE SI	
D1532	B0AANM000004	DIODE SI	
D1533	MA3J142D0L	DIODE SI CHIP	
D1804	MA2C18800E	DIODE SI	
D1805	B0HAPR000015	DIODE SI	⚠
D1807	MAZ4082NMF	DIODE ZENER 8.2V	
D1808	B0HAPR000015	DIODE SI	⚠
D1931	B0HAMP000093	DIODE SI	
D1932	B0AAMV000002	DIODE SI	
D1933	MA2C18800E	DIODE SI	
D1934	B0BB17000009	DIODE ZENER 17V	
D1935	B0JAME000078	DIODE SI	
D1936	MA2C18800E	DIODE SI	
D1937	B0EDKT000009	DIODE SI CHIP	⚠
D1940	B0HANM000028	DIODE SI	
D1941	MAZ4082NMF	DIODE ZENER 8.2V	

Ref. No.	Part No.	Part Name & Description	Remarks
D1997	MAZ41500MF	DIODE ZENER 15V	
D1998	MAZ41500MF	DIODE ZENER 15V	
D1999	MAZ41500MF	DIODE ZENER 15V	
ZN1001	ERZVGAD681T2	SURGE ABSORBER 680V	⚠
ZN1801	ERZVGAD681T2	SURGE ABSORBER 680V	⚠

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R1001	ERDS1FJ474T	CARBON 1/2W 470K	⚠
R1002	D0BF825JA030	METAL FILM 1/2W 8.2M	⚠
R1003	ERJ8ENF1803V	MGF CHIP 1/8W 180K	
R1004	ERJ8ENF1803V	MGF CHIP 1/8W 180K	
R1005	D1F5100E0002	W FLMPRF 5W 10	⚠
R1006	ERJ8GEYJ562V	MGF CHIP 1/8W 5.6K	
R1007	ERJ8ENF1803V	MGF CHIP 1/8W 180K	
R1008	ERJ8ENF1803V	MGF CHIP 1/8W 180K	
R1009	ERJ8GEYJ562V	MGF CHIP 1/8W 5.6K	
R1010	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R1011	ERJ6GEYJ152V	MGF CHIP 1/10W 1.5K	
R1012	ERJ6GEYJ305V	MGF CHIP 1/10W 3M	
R1013	ERJ6GEYJ305V	MGF CHIP 1/10W 3M	
R1301	ERJ8GEYJ331V	MGF CHIP 1/8W 330	
R1302	ERJ8GEYJ331V	MGF CHIP 1/8W 330	
R1303	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1304	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1306	ERJ8GEYJ100V	MGF CHIP 1/8W 10	
R1307	ERJ8GEYJ100V	MGF CHIP 1/8W 10	
R1308	ERJ6GEYJ220V	MGF CHIP 1/10W 22	
R1309	D1BZR060A014	MGF CHIP 1/16W 0.06	
R1310	D1BZR060A014	MGF CHIP 1/16W 0.06	
R1311	D1BZR060A014	MGF CHIP 1/16W 0.06	
R1312	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1313	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1314	ERJ8ENF2700V	MGF CHIP 1/8W 270	
R1315	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R1316	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R1317	ERJ6GEYJ822V	MGF CHIP 1/10W 8.2K	
R1318	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1320	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1321	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1322	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1323	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1324	EVMAASA00B53	VARIABLE 5K	
R1325	ERJ6GEYJ222V	MGF CHIP 1/10W 2.2K	
R1328	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1329	ERJ6ENF3001V	MGF CHIP 1/10W 3K	
R1330	ERX2SJW2R2E	METAL FILM 2W 2.2	
R1404	ERJ8GEYJ101V	MGF CHIP 1/8W 100	
R1405	ERJ8ENF3300V	MGF CHIP 1/8W 330	
R1408	ERX2SZGWR47E	METAL FILM 2W 0.47	
R1409	ERX2SZGWR47E	METAL FILM 2W 0.47	
R1410	ERX2SZGWR47E	METAL FILM 2W 0.47	
R1411	ERX2SZGWR47E	METAL FILM 2W 0.47	
R1426	ERJ8GEYJ4R7V	MGF CHIP 1/8W 4.7	
R1429	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1501	ERG2SGW331E	METAL OXIDE 2W 330	
R1511	ERG2SJW123E	METAL OXIDE 2W 12K	
R1512	ERG2SJW123E	METAL OXIDE 2W 12K	
R1513	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1514	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1518	ERJ8GEYJ221V	MGF CHIP 1/8W 220	
R1519	ERJ8GEYJ220V	MGF CHIP 1/8W 22	
R1520	ERJ8GEYJ220V	MGF CHIP 1/8W 22	
R1521	ERF10TJ391	W FLMPRF 10W 390	
R1522	ERJ8GEYJ103V	MGF CHIP 1/8W 10K	
R1523	ERJ8GEYJ100V	MGF CHIP 1/8W 10	
R1524	ERJ8GEYJ100V	MGF CHIP 1/8W 10	
R1525	ERJ8GEYJ100V	MGF CHIP 1/8W 10	
R1530	ERJ6ENF1102V	MGF CHIP 1/10W 11K	
R1531	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1533	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1534	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1535	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1539	ERJ6ENF1102V	MGF CHIP 1/10W 11K	
R1544	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1545	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1546	ERJP08D7501V	MGF CHIP 1/3W 7.5K	
R1547	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1548	ERJ6GEYJ513V	MGF CHIP 1/10W 51K	
R1549	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1550	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1551	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1552	ERJP08D7501V	MGF CHIP 1/3W 7.5K	
R1554	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1556	ERJP08D7501V	MGF CHIP 1/3W 7.5K	
R1557	ERJP08D7501V	MGF CHIP 1/3W 7.5K	
R1558	ERJP08D7501V	MGF CHIP 1/3W 7.5K	
R1559	ERJP08D7501V	MGF CHIP 1/3W 7.5K	
R1601	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1602	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1603	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1604	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1605	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1606	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1700	ERG2SJW560E	METAL OXIDE 2W 56	
R1701	ERG2SJW560E	METAL OXIDE 2W 56	
R1703	EVMAASA00B33	VARIABLE 3K	
R1704	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R1705	ERJ6GEYJ100V	MGF CHIP 1/10W 10	
R1805	ERJ8GEYJ220V	MGF CHIP 1/8W 22	
R1806	ERJ8GEYJ101V	MGF CHIP 1/8W 100	
R1807	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1808	ERJ8ENF2263V	MGF CHIP 1/8W 226K	
R1809	ERJ8ENF2263V	MGF CHIP 1/8W 226K	
R1810	ERJ8ENF2263V	MGF CHIP 1/8W 226K	
R1811	ERJ8ENF2263V	MGF CHIP 1/8W 226K	
R1812	ERJ6GEYJ473V	MGF CHIP 1/10W 47K	
R1813	ERJ8GEYJ434V	MGF CHIP 1/8W 430K	
R1814	ERJ8GEYJ434V	MGF CHIP 1/8W 430K	
R1815	ERJ8GEYJ434V	MGF CHIP 1/8W 430K	
R1816	ERJ6ENF1202V	MGF CHIP 1/10W 12K	
R1817	ERX2SJWR33E	METAL FILM 2W 0.33	
R1818	ERJ6RBD472V	MGF CHIP 1/10W 4.7K	
R1819	ERX2SJWR33E	METAL FILM 2W 0.33	
R1820	ERJ6RBD1001V	MGF CHIP 1/10W 1K	
R1821	ERJ8ENF3603V	MGF CHIP 1/8W 360K	
R1822	ERJ6GEYJ331V	MGF CHIP 1/10W 330	
R1823	ERJ8ENF3603V	MGF CHIP 1/8W 360K	
R1824	ERJ8GEYJ101V	MGF CHIP 1/8W 100	
R1825	ERJ8ENF3603V	MGF CHIP 1/8W 360K	
R1826	ERJ6ENF1802V	MGF CHIP 1/10W 18K	
R1827	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1828	ERJ6ENF1201V	MGF CHIP 1/10W 1.2K	
R1830	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1831	ERJ8GEYJ242V	MGF CHIP 1/8W 2.4K	
R1832	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1833	ERJ8GEYJ474V	MGF CHIP 1/8W 470K	
R1907	ERJ8GEYJ242V	MGF CHIP 1/8W 2.4K	
R1908	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1909	ERJ6GEYJ333V	MGF CHIP 1/10W 33K	
R1910	ERJ6GEYJ103V	MGF CHIP 1/10W 10K	
R1911	ERJ6GEYJ223V	MGF CHIP 1/10W 22K	
R1931	ERJ6GEYJ274V	MGF CHIP 1/10W 270K	
R1932	ERJ6GEYJ153V	MGF CHIP 1/10W 15K	
R1933	ERJ8GEYJ100V	MGF CHIP 1/8W 10	
R1935	ERJ6ENF1802V	MGF CHIP 1/10W 18K	
R1936	ERJ6GEY0R00V	MGF CHIP 1/10W 0	
R1937	ERJ6ENF1002V	MGF CHIP 1/10W 10K	
R1938	ERJ8GEYJ2R2V	MGF CHIP 1/8W 2.2	
R1940	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1941	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1942	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1943	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1944	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1948	ERJ6ENF3301V	MGF CHIP 1/10W 3.3K	
R1949	ERJ6ENF1201V	MGF CHIP 1/10W 1.2K	

Ref. No.	Part No.	Part Name & Description	Remarks
R1950	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1951	EVMAASA00B23	VARIABLE 2K	
R1952	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1953	ERJ6GEYJ102V	MGF CHIP 1/10W 1K	
R1954	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1955	ERJ6GEYJ104V	MGF CHIP 1/10W 100K	
R1956	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R1957	ERG2SJW102E	METAL OXIDE 2W 1K	
R1958	ERJ6GEYJ2R2V	MGF CHIP 1/10W 2.2	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C1003	ECQU2A334ML	POLYESTER 250V 0.33UF	⚠
C1007	ECKNNA331KB	CERAMIC 250V 330PF	⚠
C1008	ECKENA331KB	CERAMIC 250V 330PF	⚠
C1015	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1016	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1017	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1018	ECQU2A474ML	POLYESTER 250V 0.47UF	⚠
C1019	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1021	F1J1C1050011	C CHIP 16V 1UF	
C1022	F1J1C1050011	C CHIP 16V 1UF	
C1302	F1A3A221A040	CERAMIC 1KV 220PF	
C1303	F0C3C153A035	POLYESTER 1.6KV 0.015UF	
C1304	F2A1C1520023	ELECTROLYTIC 16V 1500UF	
C1305	F1A3A221A040	CERAMIC 1KV 220PF	
C1306	ECKNNA222ME	CERAMIC 4KV 2200PF	⚠
C1307	F2A1V6810024	ELECTROLYTIC 35V 680UF	
C1309	F2A1C1520023	ELECTROLYTIC 16V 1500UF	
C1310	F2A2C1510004	ELECTROLYTIC 160V 150UF	⚠
C1311	F2A2C1510004	ELECTROLYTIC 160V 150UF	⚠
C1312	ECJ2VB1H333K	C CHIP 50V 0.033UF	
C1313	ECJ2YB1H104K	C CHIP 50V 0.1UF	
C1314	ECJ2FB1E105K	C CHIP 25V 1UF	
C1315	ECJ2FB1E105K	C CHIP 25V 1UF	
C1317	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1320	F2A1E470A453	ELECTROLYTIC 25V 47UF	
C1321	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1322	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1403	F1A3A221A040	CERAMIC 1KV 220PF	
C1506	ECWH20302HVB	POLYESTER 2KV 3000PF	
C1507	ECWF2104JSB	POLYESTER 250V 0.1UF	
C1509	ECWF2105JSB	POLYESTER 250V 1UF	
C1510	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1523	F2A2E6800004	ELECTROLYTIC 250V 68UF	
C1526	F1A3D101A010	CERAMIC 2KV 100PF	
C1527	F1A3D101A010	CERAMIC 2KV 100PF	
C1528	F1A3D101A010	CERAMIC 2KV 100PF	
C1529	F1A3D101A010	CERAMIC 2KV 100PF	
C1530	ECJ2VC1H102J	C CHIP 50V 1000PF	
C1531	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1532	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1535	ECWH20302HVB	POLYESTER 2KV 3000PF	
C1536	F2A1E470A453	ELECTROLYTIC 25V 47UF	
C1537	ECJ2VC1H102J	C CHIP 50V 1000PF	
C1538	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1601	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1602	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1603	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1604	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1801	F0CZZ4750001	POLYESTER 4.7UF	
C1803	F1A3A221A040	CERAMIC 1KV 220PF	
C1804	ECJ2FB1C474K	C CHIP 16V 0.47UF	
C1805	ECJ2YB1H104K	C CHIP 50V 0.1UF	
C1806	F2A1E4700084	ELECTROLYTIC 25V 47UF	
C1810	F2B2W3910005	ELECTROLYTIC 450V 390UF	⚠
C1811	ECJ2FB1C105K	C CHIP 16V 1UF	
C1812	ECJ2YB1H104K	C CHIP 50V 0.1UF	
C1813	F1J1H471A324	C CHIP 50V 470PF	
C1814	F1E2J4730001	CERAMIC 630V 0.047UF	
C1824	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1825	ECJ2VC1H331J	C CHIP 50V 330PF	
C1826	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1905	F2A1V1510021	ELECTROLYTIC 35V 150UF	
C1908	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1909	ECJ2VB1H103K	C CHIP 50V 0.01UF	
C1931	ECJ2VC1H101J	C CHIP 50V 100PF	
C1932	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1933	ECJ2YB1H104K	C CHIP 50V 0.1UF	
C1934	ECJ2YB1H104K	C CHIP 50V 0.1UF	
C1935	F2A1E1500001	ELECTROLYTIC 25V 15UF	
C1936	ECJ2VC1H471J	C CHIP 50V 470PF	
C1937	F2A1V1510021	ELECTROLYTIC 35V 150UF	
C1938	ECJ2FB1C105K	C CHIP 16V 1UF	
C1939	F2A2T1510001	ELECTROLYTIC 220V 150UF	⚠
C1940	ECJ2VC1H471J	C CHIP 50V 470PF	
C1941	F2A1V1510021	ELECTROLYTIC 35V 150UF	
C1942	ECKNNA221KB	CERAMIC 4KV 220PF	⚠
C1943	F2A1E1500001	ELECTROLYTIC 25V 15UF	
C1945	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1946	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1947	ECJ2VB1C224K	C CHIP 16V 0.22UF	
C1948	F2A1E470A453	ELECTROLYTIC 25V 47UF	
C1949	F2A1E470A453	ELECTROLYTIC 25V 47UF	
C1950	F2A1E470A453	ELECTROLYTIC 25V 47UF	
C1951	F2A1E470A453	ELECTROLYTIC 25V 47UF	
C1952	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1953	ECJ2VB1H102K	C CHIP 50V 1000PF	
C1954	F1A3A102A040	CERAMIC 1KV 1000PF	
C1999	ECJ2VB1H103K	C CHIP 50V 0.01UF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L1001	G0B153H00006	LINE FILTER	⚠
L1002	G0B153H00006	LINE FILTER	⚠
L1003	ELF17N002A	LINE FILTER 142MH	⚠
L1301	EXCELDR35V	EMI BEADS CORE	
L1302	J0JKB0000038	COIL	
L1303	J0JKB0000037	INDUCTOR	
L1304	J0JKB0000037	INDUCTOR	
L1305	J0JKB0000037	INDUCTOR	
L1401	EXCELDR35V	EMI BEADS CORE	
L1501	G4D2A0000271	TRANSFORMER SWITCHING	
L1502	G4D2A0000272	TRANSFORMER SWITCHING	
L1503	J0JKB0000038	COIL	
L1504	J0JKB0000038	COIL	
L1902	J0JKB0000038	COIL	
L1903	J0JKB0000038	COIL	
L1904	J0JKB0000037	INDUCTOR	
L1998	J0JKB0000037	INDUCTOR	
L1999	J0JKB0000037	INDUCTOR	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN1001	K1KA02A00593	CONNECTOR 2P	
CN1514	K1KA14BA0058	CONNECTOR 14P	
CN1516	K1KA02A00592	CONNECTOR 2P	
CN1520	K1KA02AA0193	CONNECTOR 2P	
CN1522	K1KA03BA0061	CONNECTOR 3P	

FUSE & PROTECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
F1001	LSEK0755	FUSE 250V 6.3A	⚠
F1002	K5G162B00009	FUSE 250V 1.6A	⚠
PR1301	B1ZAZ0000016	IC PROTECTOR 2.5A	⚠
PR1302	B1ZAZ0000016	IC PROTECTOR 2.5A	⚠
PR1304	B1ZAZ0000016	IC PROTECTOR 2.5A	⚠
PR1305	K5Y502BA0001	FUSE 250V 5A	⚠

RELAY

Ref. No.	Part No.	Part Name & Description	Remarks
RL1902	K6B1AGA00238	RELAY	⚠
RL1903	K6B1AGA00238	RELAY	⚠

TRANSFORMER

Ref. No.	Part No.	Part Name & Description	Remarks
T1302	G4D1A0000098	TRANSFORMER SWITCHING	⚠
T1401	G4D3A0000192	TRANSFORMER SWITCHING	⚠
T1402	G4D2A0000273	TRANSFORMER SWITCHING	
T1405	ETQ11K5AZ	TRANSFORMER CURRENT	⚠
T1501	EULSPJ005A	TRANSFORMER HIGH-VOLTAGE	
T1801	G4D3A0000193	TRANSFORMER SWITCHING	
T1901	G4D2A0000274	TRANSFORMER SWITCHING	⚠

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
482	XYN3+J8FJ	SCREW W/WASHER,STEEL	
494	XYN3+J10FJ	SCREW,W/WASHER,STEEL	
721	LSEK0721	HEAT SINK UNIT	
722	LSEK0723	HEAT SINK UNIT	
723	LSEK0724	HEAT SINK UNIT	
725	LSSC0917	HEAT SINK	
764	VMTS0059	CUSHION,RUBBER	

PRINTED CIRCUIT BOARD ASSEMBLY

Ref. No.	Part No.	Part Name & Description	Remarks
E31	LSEP1207A1	POWER CONTROL 1 P.C.B. NR	
E32	LSEP1208A1	POWER CONTROL 2 P.C.B. NR	

19.4.2. POWER CONTROL 2 P.C.B. NR

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
781	B1DFHM000005	TRANSISTOR FET	

19.4.3. LCD DRIVE P.C.B.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC2001	C1AB00002033	IC, LINEAR	
IC2002	C1AB00002033	IC, LINEAR	
IC2003	C1AB00002033	IC, LINEAR	
IC2004	C1AB00002033	IC, LINEAR	
IC2005	C1AB00002033	IC, LINEAR	
IC2006	C1AB00002033	IC, LINEAR	
IC2007	C1AB00002289	IC, LINEAR	
IC2008	C1AB00002289	IC, LINEAR	
IC2009	C1AB00002289	IC, LINEAR	
IC2301	MN101C77DAC	IC, 8BIT MICROCONTROLLER	E.S.D.
IC2302	LSSK0088	IC, EEP ROM	E.S.D.
IC2303	C0EBE0000275	IC, LINEAR	
IC2304	C0JBAZ000994	IC, CMOS STANDARD LOGIC	E.S.D.
IC2305	C0JBAA000362	IC, CMOS STANDARD LOGIC	E.S.D.
IC2501	C0DBGYY00057	IC, LINEAR	
IC2502	C0CBCBD00008	IC, LINEAR	
IC2503	C1AB00002351	IC, LINEAR	CSP
IC2504	C0JBCZ000519	IC, CMOS STANDARD LOGIC	E.S.D.
IC2701	C0DBEKG00004	IC, LINEAR	
IC2702	C0DBEKG00003	IC, LIENAR	
IC2703	C0DBEKG00003	IC, LIENAR	
IC2704	C0DBEKG00003	IC, LIENAR	
IC2705	C0ABBA000137	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q2001	2SD1819AHL	TRANSISTOR SI NPN CHIP	
or Q2001	B1ABCF000020	TRANSISTOR SI NPN CHIP	
Q2002	2SB1218AHL	TRANSISTOR SI PNP CHIP	
or Q2002	B1ADCF000063	TRANSISTOR SI PNP CHIP	
Q2302	2SK137400L	TRANSISTOR FET CHIP	
Q2303	2SK137400L	TRANSISTOR FET CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D2301	MA2J111008	DIODE SI CHIP	
or D2301	B0ACCK000005	DIODE SI CHIP	
or D2301	MA2J11100L	DIODE SI CHIP	
D2302	MA3J142E0L	DIODE SI CHIP	
or D2302	B0ADCJ000012	DIODE SI CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R2001	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R2002	ERJ3GEYJ153V	MGF CHIP 1/16W 15K	
R2003	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2004	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2005	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2006	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2007	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2008	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2009	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2010	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2011	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2012	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2013	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2014	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2015	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2016	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2017	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2018	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2019	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2020	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2021	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2022	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2023	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2024	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2025	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2026	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2027	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2028	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2029	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2030	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2031	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2032	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2033	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2034	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2035	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2036	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2040	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2041	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2042	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2043	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2044	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2045	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2046	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2047	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2048	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2049	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2050	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2051	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2052	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R2053	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2054	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2055	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2056	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2057	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2058	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2059	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2060	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2061	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2062	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2063	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2064	ERJ3GEYJ220V	MGF CHIP 1/16W 22	

Ref. No.	Part No.	Part Name & Description	Remarks
R2065	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2066	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2067	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2068	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2069	ERA3YED392V	MGF CHIP 1/16W 3.9K	
R2070	ERA3YED103V	MGF CHIP 1/16W 10K	
R2071	ERA3YED472V	MGF CHIP 1/16W 4.7K	
R2072	ERA3YED272V	MGF CHIP 1/16W 2.7K	
R2073	ERJ3GEYJ273V	MGF CHIP 1/16W 27K	
R2074	ERJ3GEYJ123V	MGF CHIP 1/16W 12K	
R2075	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2076	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2077	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2078	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2079	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2080	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2081	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2082	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2083	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2084	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2085	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2086	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2087	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2088	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2089	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2090	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2091	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2092	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2093	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2094	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2095	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2096	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2097	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2098	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2099	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2100	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2101	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2102	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2103	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2104	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2105	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2106	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R2107	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2108	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2109	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2110	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2111	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2112	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2113	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2114	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2115	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2116	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2117	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2118	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2119	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2120	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2121	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2122	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2123	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2124	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2125	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2126	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2127	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2128	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2129	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2130	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2131	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2132	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R2133	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R2134	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R2135	ERA3YED122V	MGF CHIP 1/16W 1.2K	
R2136	ERA3YED102V	MGF CHIP 1/16W 1K	
R2301	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

Ref. No.	Part No.	Part Name & Description	Remarks
R2302	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2303	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2304	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2305	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2306	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R2308	ERJ3GEYJ223V	MGF CHIP 1/16W 22K	
R2309	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2310	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2313	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R2314	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R2315	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2316	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R2317	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2318	ERJ3GEYJ273V	MGF CHIP 1/16W 27K	
R2319	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2320	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2321	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2322	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R2323	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2324	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2327	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R2328	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R2329	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R2331	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R2335	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2338	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R2340	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2341	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2342	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2343	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2344	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2346	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2347	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2348	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2349	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2353	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2356	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2357	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R2358	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2359	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2360	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2362	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2363	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2364	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2365	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2366	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2367	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2368	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2369	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2372	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2373	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2374	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2375	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2376	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2377	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2378	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2379	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2380	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2381	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2383	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2387	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2389	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2390	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2392	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2395	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2396	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2397	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2398	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2399	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2400	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R2401	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R2402	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2404	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	

Ref. No.	Part No.	Part Name & Description	Remarks
R2405	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2406	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2407	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2408	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2409	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2410	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R2411	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2412	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2413	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R2414	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2416	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2417	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2418	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2420	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R2421	ERJ3GEYJ560V	MGF CHIP 1/16W 56	
R2422	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2425	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R2427	ERJ3GEYJ100V	MGF CHIP 1/16W 10	
R2429	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R2501	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2502	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2503	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2504	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2505	EXBV8V101JV	ARRAY CHIP 100	
R2506	EXBV8V101JV	ARRAY CHIP 100	
R2507	EXBV8V101JV	ARRAY CHIP 100	
R2508	EXBV8V101JV	ARRAY CHIP 100	
R2509	EXBV8V101JV	ARRAY CHIP 100	
R2510	EXBV8V101JV	ARRAY CHIP 100	
R2511	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2512	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2513	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2514	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2515	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2516	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2517	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2518	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2519	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2520	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2521	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2522	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2524	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2525	ERJ6GEYJ101V	MGF CHIP 1/10W 100	
R2526	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2527	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2528	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2529	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2530	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2531	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2532	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2533	EXBV8V101JV	ARRAY CHIP 100	
R2534	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2535	EXBV8V101JV	ARRAY CHIP 100	
R2537	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2539	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2540	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2541	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2543	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2545	EXBV8V101JV	ARRAY CHIP 100	
R2546	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2547	EXBV8V101JV	ARRAY CHIP 100	
R2548	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2549	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2550	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2551	EXBV8V101JV	ARRAY CHIP 100	
R2552	EXBV8V101JV	ARRAY CHIP 100	
R2553	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2554	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2555	EXBV8V101JV	ARRAY CHIP 100	
R2556	EXBV8V101JV	ARRAY CHIP 100	
R2557	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2558	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2559	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2560	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2561	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2562	EXBV8V101JV	ARRAY CHIP 100	
R2563	EXBV8V101JV	ARRAY CHIP 100	
R2564	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2565	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2566	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2567	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2568	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2569	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2570	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2571	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2572	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2573	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R2574	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2575	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2576	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
R2577	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2578	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2579	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2580	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R2581	EXBV8V101JV	ARRAY CHIP 100	
R2582	EXBV8V101JV	ARRAY CHIP 100	
R2701	ERJ8GEYJR47V	MGF CHIP 1/8W 0.47	
R2702	ERJ3GEYJ682V	MGF CHIP 1/16W 6.8K	
R2703	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R2706	ERA3YED153V	MGF CHIP 1/16W 15K	
R2707	ERA3YED122V	MGF CHIP 1/16W 1.2K	
R2708	ERJ3GEYJ752V	MGF CHIP 1/16W 7.5K	
R2712	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R2713	ERJ3GEYJ122V	MGF CHIP 1/16W 1.2K	
R2714	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R2716	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R2717	ERA3YED223V	MGF CHIP 1/16W 22K	
R2718	ERA3YED223V	MGF CHIP 1/16W 22K	
R2719	ERJ3GEYJ222V	MGF CHIP 1/16W 2.2K	
R2720	ERJ3EKF2201V	MGF CHIP 1/16W 2.2K	
R2726	ERJ3GEYJ122V	MGF CHIP 1/16W 1.2K	
R2727	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R2731	ERJ3GEYJ122V	MGF CHIP 1/16W 1.2K	
R2732	ERJ3GEYJ562V	MGF CHIP 1/16W 5.6K	
R2740	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R2741	ERJ3GEYJ822V	MGF CHIP 1/16W 8.2K	
R2742	ERA3YKD473V	MGF CHIP 1/16W 47K	
R2743	ERJ12YJR68H	MGF CHIP 1/2W 0.68	
R2744	ERJ3GEY0R00V	MGF CHIP 1/16W 0	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C2001	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2002	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2003	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2004	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2005	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2006	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2007	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2008	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2009	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2010	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2011	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2012	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2013	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2014	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2015	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2016	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2017	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2018	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2019	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2020	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2021	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2022	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C2023	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2024	ECJ1VF1E104Z	C CHIP 25V 0.1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C2025	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2026	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2027	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2028	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2029	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2030	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2031	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2032	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2033	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	
C2034	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2035	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2036	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2037	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2038	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2039	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2040	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2041	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2042	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2043	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2044	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2045	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2046	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2047	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2048	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2049	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2050	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2051	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2052	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2053	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2054	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2055	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2056	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2057	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2058	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2059	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2060	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2061	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2062	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2064	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2065	F2H0J220A010	ELECTROLYTIC CHIP 6.3V 22UF	
C2066	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2067	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2068	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2069	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2070	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2071	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2072	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2073	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2074	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2075	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2076	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2077	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2078	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2079	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2080	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2081	F2H0J220A010	ELECTROLYTIC CHIP 6.3V 22UF	
C2083	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2084	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2085	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2086	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2087	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2088	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2089	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2090	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2091	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2092	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2093	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2094	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2095	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2096	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2097	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2098	F2H1E330A007	ELECTROLYTIC CHIP 25V 33UF	
C2099	F2H0J470A010	ELECTROLYTIC CHIP 6.3V 47UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C2100	F2H0J220A010	ELECTROLYTIC CHIP 6.3V 22UF	
C2105	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2302	ECJ1VB1C104K	C CHIP 16V 0.1UF	
C2303	F1H1C104A008	C CHIP 16V 0.1UF	
C2308	F1H1C104A008	C CHIP 16V 0.1UF	
C2309	EEE0JA470SR	ELECTROLYTIC 6.3V 47UF	
C2311	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
C2317	F1H1C104A008	C CHIP 16V 0.1UF	
C2318	F1H1C104A008	C CHIP 16V 0.1UF	
C2320	F1H1C104A008	C CHIP 16V 0.1UF	
C2322	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C2323	EEE0JA220SR	ELECTROLYTIC 6.3V 22UF	
C2326	F1H1C104A008	C CHIP 16V 0.1UF	
C2327	EEE0JA220SR	ELECTROLYTIC 6.3V 22UF	
C2501	F1J0J106A004	C CHIP 6.3V 10UF	
C2502	F1J0J106A004	C CHIP 6.3V 10UF	
C2503	F1J0J106A004	C CHIP 6.3V 10UF	
C2505	F1J0J106A004	C CHIP 6.3V 10UF	
C2506	ECJ2YB0J225K	C CHIP 6.3V 2.2UF	
C2508	F1J0J106A004	C CHIP 6.3V 10UF	
C2509	F1H1C104A008	C CHIP 16V 0.1UF	
C2510	F1H1C104A008	C CHIP 16V 0.1UF	
C2511	F1H1C104A008	C CHIP 16V 0.1UF	
C2512	F1H1C104A008	C CHIP 16V 0.1UF	
C2514	F1H1C104A008	C CHIP 16V 0.1UF	
C2515	ECJ1VB1C104K	C CHIP 16V 0.1UF	
C2516	F1H1C104A008	C CHIP 16V 0.1UF	
C2517	F1H1C104A008	C CHIP 16V 0.1UF	
C2518	F1H1C104A008	C CHIP 16V 0.1UF	
C2520	F1J0J106A004	C CHIP 6.3V 10UF	
C2521	F1J0J106A004	C CHIP 6.3V 10UF	
C2522	F1H1C104A008	C CHIP 16V 0.1UF	
C2523	ECJ1VB1H103K	C CHIP 50V 0.01UF	
C2524	F1J1A1050002	C CHIP 10V 1UF	
C2525	F1H1C104A008	C CHIP 16V 0.1UF	
C2526	EEE0JA470SR	ELECTROLYTIC 6.3V 47UF	
C2527	F1H1C104A008	C CHIP 16V 0.1UF	
C2528	F1H1C104A008	C CHIP 16V 0.1UF	
C2529	F1H1C104A008	C CHIP 16V 0.1UF	
C2530	F1H1C104A008	C CHIP 16V 0.1UF	
C2531	F1H1C104A008	C CHIP 16V 0.1UF	
C2532	F1H1C104A008	C CHIP 16V 0.1UF	
C2533	F1H1C104A008	C CHIP 16V 0.1UF	
C2534	F1H1C104A008	C CHIP 16V 0.1UF	
C2535	F1H1C104A008	C CHIP 16V 0.1UF	
C2536	F1H1C104A008	C CHIP 16V 0.1UF	
C2537	F1H1C104A008	C CHIP 16V 0.1UF	
C2538	F1H1C104A008	C CHIP 16V 0.1UF	
C2539	F1H1C104A008	C CHIP 16V 0.1UF	
C2540	F1H1C104A008	C CHIP 16V 0.1UF	
C2541	F1H1C104A008	C CHIP 16V 0.1UF	
C2542	F1H1C104A008	C CHIP 16V 0.1UF	
C2543	F1H1C104A008	C CHIP 16V 0.1UF	
C2544	F1J0J106A004	C CHIP 6.3V 10UF	
C2545	F1H1C104A008	C CHIP 16V 0.1UF	
C2546	ECJ2YB0J225K	C CHIP 6.3V 2.2UF	
C2547	F1H1C104A008	C CHIP 16V 0.1UF	
C2548	F1H1C104A008	C CHIP 16V 0.1UF	
C2549	F1H1C104A008	C CHIP 16V 0.1UF	
C2550	ECJ2YB0J225K	C CHIP 6.3V 2.2UF	
C2701	F1K1A4750013	C CHIP 10V 4.7UF	
C2702	F1K1A4750013	C CHIP 10V 4.7UF	
C2703	F1K1A4750013	C CHIP 10V 4.7UF	
C2704	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2705	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2706	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2707	F1H1C104A008	C CHIP 16V 0.1UF	
C2708	F1H1C104A008	C CHIP 16V 0.1UF	
C2709	F1H1C104A008	C CHIP 16V 0.1UF	
C2710	F1H1C104A008	C CHIP 16V 0.1UF	
C2711	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2712	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2713	F1H1C104A008	C CHIP 16V 0.1UF	

Ref. No.	Part No.	Part Name & Description	Remarks
C2714	F1H1C104A008	C CHIP 16V 0.1UF	
C2715	F1H1C104A008	C CHIP 16V 0.1UF	
C2716	F1H1C104A008	C CHIP 16V 0.1UF	
C2717	F1H1C104A008	C CHIP 16V 0.1UF	
C2718	F1H1C104A008	C CHIP 16V 0.1UF	
C2719	F1H1C104A008	C CHIP 16V 0.1UF	
C2720	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2721	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2722	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C2723	F2H1E470A007	ELECTROLYTIC CHIP 25V 47UF	
C2724	F2H1V100A004	ELECTROLYTIC CHIP 35V 10UF	
C2725	F2G1V1000022	ELECTROLYTIC CHIP 35V 10UF	
C2727	F1J1A106A024	C CHIP 10V 10UF	
C2728	ECJ1VF1H103Z	C CHIP 50V 0.01UF	
C2729	F2H0J101A010	ELECTROLYTIC CHIP 6.3V 100UF	
C2730	F2H0J101A010	ELECTROLYTIC CHIP 6.3V 100UF	
C2731	ECJ1VB1C104K	C CHIP 16V 0.1UF	
C2732	F1H1C104A008	C CHIP 16V 0.1UF	
C2734	ECJ1VC1H470J	C CHIP 50V 47PF	
C2735	ECJ1VC1H470J	C CHIP 50V 47PF	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L2001	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2002	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2003	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2004	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2005	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2006	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2007	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2008	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2009	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2010	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2011	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2012	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2013	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2014	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2015	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2016	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2301	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2302	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2304	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2506	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2507	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2508	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2509	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2510	J0JHC0000018	EMI FILTER CHIP	
L2511	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2512	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
L2513	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
L2514	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2701	J0JHC0000018	EMI FILTER CHIP	
L2702	J0JHC0000018	EMI FILTER CHIP	
L2703	J0JHC0000018	EMI FILTER CHIP	
L2704	J0JHC0000018	EMI FILTER CHIP	
L2705	J0JHC0000018	EMI FILTER CHIP	
L2707	J0JCC0000181	BEADS CORE	
L2708	J0JCC0000181	BEADS CORE	
L2709	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2710	J0JCC0000181	BEADS CORE	
L2711	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2712	J0JCC0000181	BEADS CORE	
L2713	J0JCC0000077	BEAD INDUCTOR CHIP 600UH	
L2715	ERJ3GEYJ470V	MGF CHIP 1/16W 47	
L2716	ERJ3GEYJ470V	MGF CHIP 1/16W 47	

CRYSTAL OSCILLATOR

Ref. No.	Part No.	Part Name & Description	Remarks
X2301	H2D800400017	CRYSTAL OSCILLATOR	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN2001	K1MY36BA0006	CONNECTOR 36P	
CN2002	K1MY36BA0006	CONNECTOR 36P	
CN2003	K1MY36BA0006	CONNECTOR 36P	
CN2301	K1KA02BA0047	CONNECTOR 2P	
CN2303	K1KA08AA0083	CONNECTOR 8P	
CN2501	K1KA02BA0014	CONNECTOR 2P	
CN2502	K1KA20B00153	CONNECTOR 20P	
CN2701	K1KA03AA0150	CONNECTOR 3P	
CN2702	K1KA03BA0047	CONNECTOR 3P	
CN2703	K1KA03BA0050	CONNECTOR 3P	
CN2704	K1KA08B00256	CONNECTOR 8P	
CN2705	K1KA07AA0083	CONNECTOR 7P	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
733	LSSC0880	LCD DRIVE SHIELD CASE TOP,STEEL	
734	LSSC0879	LCD DRIVE SHIELD CASE BOTTOM,STEEL	
763	LSMG0141	THERCOON SHEET	
766	LSMG0173	THERCOON SHEET	

19.4.4. THERMISTOR 2 P.C.B.

RESISTOR

Ref. No.	Part No.	Part Name & Description	Remarks
R2821	D4CE31330001	THERMISTOR	⚠

PIN HEADER

Ref. No.	Part No.	Part Name & Description	Remarks
P2821	K1KA02AA0300	CONNECTOR 2P	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
762	LSJA0533	CONNECTOR CABLE W/PLUG	

19.4.5. COVER SWITCH P.C.B.

PIN HEADER

Ref. No.	Part No.	Part Name & Description	Remarks
P2912	LSJA0551	CONNECTOR CABLE W/PLUG	

SWITCH

Ref. No.	Part No.	Part Name & Description	Remarks
SW2911	K0L1BA000114	SWITCH	

19.4.6. IRIS P.C.B.

INTEGRATED CIRCUITS

Ref. No.	Part No.	Part Name & Description	Remarks
IC9500	C1BB00000818	IC, LINEAR	
IC9501	C0ABCA000064	IC, LINEAR	
IC9502	LSSK0096	IC, PIC MICROCONTROLLER	E.S.D.
IC9504	C0CBCDD00004	IC, LINEAR	

TRANSISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
Q9500	2SD1819A0L	TRANSISTOR SI NPN CHIP	
Q9501	2SD1819A0L	TRANSISTOR SI NPN CHIP	
Q9502	2SD1819A0L	TRANSISTOR SI NPN CHIP	
Q9503	2SB1218A0L	TRANSISTOR SI PNP CHIP	
Q9504	2SD1819A0L	TRANSISTOR SI NPN CHIP	

DIODES

Ref. No.	Part No.	Part Name & Description	Remarks
D9500	B0JCPD000026	DIODE SI CHIP	
D9501	B0JCPD000026	DIODE SI CHIP	

Ref. No.	Part No.	Part Name & Description	Remarks
D9502	MA3X152E0L	DIODE SI CHIP	
D9503	MA3X152E0L	DIODE SI CHIP	
D9504	MA3X15300L	DIODE SI CHIP	
D9505	MA3X704A0L	DIODE SI CHIP	

RESISTORS

Ref. No.	Part No.	Part Name & Description	Remarks
R9500	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R9501	ERJ3GEYJ124V	MGF CHIP 1/16W 120K	
R9502	ERJ3GEYJ510V	MGF CHIP 1/16W 51	
R9503	ERJ3GEYJ510V	MGF CHIP 1/16W 51	
R9504	ERJ3GEYJ124V	MGF CHIP 1/16W 120K	
R9505	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R9506	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R9507	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R9508	ERJ3EKF1691V	MGF CHIP 1/16W 1.69K	
R9509	ERJ3EKF1002V	MGF CHIP 1/16W 10K	
R9510	ERJ3EKF1002V	MGF CHIP 1/16W 10K	
R9511	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R9512	ERJ3GEYJ105V	MGF CHIP 1/16W 1M	
R9513	ERJ6GEYJ471V	MGF CHIP 1/10W 470	
R9514	ERJ3EKF5903V	MGF CHIP 1/16W 590K	
R9515	ERJ3EKF5621V	MGF CHIP 1/16W 5.62K	
R9516	ERJ3EKF5621V	MGF CHIP 1/16W 5.62K	
R9517	ERJ3EKF3923V	MGF CHIP 1/16W 392K	
R9518	ERJ3EKF3923V	MGF CHIP 1/16W 392K	
R9519	ERJ3EKF3923V	MGF CHIP 1/16W 392K	
R9520	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R9521	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R9522	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R9523	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R9524	ERJ3GEYJ333V	MGF CHIP 1/16W 33K	
R9525	ERJ3GEYJ224V	MGF CHIP 1/16W 220K	
R9526	ERJ3GEYJ122V	MGF CHIP 1/16W 1.2K	
R9527	ERJ3GEYJ102V	MGF CHIP 1/16W 1K	
R9528	ERJ3GEYJ123V	MGF CHIP 1/16W 12K	
R9529	ERJ3EKF1101V	MGF CHIP 1/16W 1.1K	
R9530	ERJ3EKF1101V	MGF CHIP 1/16W 1.1K	
R9531	ERJ3EKF1101V	MGF CHIP 1/16W 1.1K	
R9532	ERJ3GEYJ124V	MGF CHIP 1/16W 120K	
R9533	ERJ3GEYJ104V	MGF CHIP 1/16W 100K	
R9534	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R9535	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9536	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9537	ERJ3GEYJ561V	MGF CHIP 1/16W 560	
R9538	ERJ3GEYJ241V	MGF CHIP 1/16W 240	
R9539	ERJ3GEYJ681V	MGF CHIP 1/16W 680	
R9540	ERJ3GEYJ821V	MGF CHIP 1/16W 820	
R9541	ERJ6GEYJ105V	MGF CHIP 1/10W 1M	
R9542	ERJ3GEYJ101V	MGF CHIP 1/16W 100	
R9543	ERJ3GEYJ473V	MGF CHIP 1/16W 47K	
R9544	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R9545	EXB38V220JV	ARRAY CHIP 22	
R9546	ERJ3GEYJ103V	MGF CHIP 1/16W 10K	
R9547	EXB38V220JV	ARRAY CHIP 22	
R9552	ERJ3GEY0R00V	MGF CHIP 1/16W 0	
R9553	ERJ3GEYJ220V	MGF CHIP 1/16W 22	
R9554	ERJ3GEYJ220V	MGF CHIP 1/16W 22	

CAPACITORS

Ref. No.	Part No.	Part Name & Description	Remarks
C9500	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9501	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9502	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9503	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9504	ECJ2VB1C224K	C CHIP 16V 0.22UF	
C9505	ECJ1VC1H221J	C CHIP 50V 220PF	
C9506	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9507	ECJ2VB1C224K	C CHIP 16V 0.22UF	
C9508	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9509	ECJ1VF1C474Z	C CHIP 16V 0.47UF	
C9510	ECJ1VF1C474Z	C CHIP 16V 0.47UF	
C9511	ECJ1VC1H070C	C CHIP 50V 7PF	
C9512	ECJ1VC1H070C	C CHIP 50V 7PF	
C9513	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9514	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9515	ECJ2VB1H152K	C CHIP 50V 1500PF	
C9516	ECJ2VB1H821K	C CHIP 50V 820PF	
C9517	ECJ2VB1H472K	C CHIP 50V 4700PF	
C9518	ECJ2VB1H332K	C CHIP 50V 3300PF	
C9519	F2G1C470A022	ELECTROLYTIC CHIP 16V 47UF	
C9520	ECJ1VF1C105Z	C CHIP 16V 1UF	
C9521	F2G1C470A022	ELECTROLYTIC CHIP 16V 47UF	
C9522	F2G1C470A022	ELECTROLYTIC CHIP 16V 47UF	
C9523	F2G0J470A019	ELECTROLYTIC CHIP 6.3V 47UF	
C9524	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C9525	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C9526	ECJ1VF1E104Z	C CHIP 25V 0.1UF	
C9527	F2G1C470A022	ELECTROLYTIC CHIP 16V 47UF	
C9531	ECJ2YF1C225Z	C CHIP 16V 2.2UF	
C9532	ECJ1VB1H102K	C CHIP 50V 1000PF	

FILTERS

Ref. No.	Part No.	Part Name & Description	Remarks
FL9500	ELKE103FA	COIL CHIP EMI	
FL9501	ELKE103FA	COIL CHIP EMI	
FL9502	ELKE103FA	COIL CHIP EMI	
FL9504	ELKE103FA	COIL CHIP EMI	

COILS

Ref. No.	Part No.	Part Name & Description	Remarks
L9500	G1C330MA0153	COIL CHIP 33UH	
L9501	G1C330MA0153	COIL CHIP 33UH	
L9502	J0JHC0000031	EMI FILTER CHIP	
L9504	J0JHC0000031	EMI FILTER CHIP	
L9505	J0JBC0000080	FILTER FOR EMI / EMC	
L9506	J0JBC0000080	FILTER FOR EMI / EMC	

CRYSTAL OSCILLATOR

Ref. No.	Part No.	Part Name & Description	Remarks
X9500	H0J200500024	CRYSTAL OSCILLATOR CHIP	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN9500	K1KA09AA0051	CONNECTOR 9P	
CN9501	K1KA05AA0104	CONNECTOR 5P	
CN9502	K1KA07AA0104	CONNECTOR 7P	

MISCELLANEOUS

Ref. No.	Part No.	Part Name & Description	Remarks
731	LSSC0884	IRIS SHIELD CASE TOP,STEEL	
732	LSSC0885	IRIS SHIELD CASE BOTTOM,STEEL	

19.4.7. HALL-S P.C.B.

INTEGRATED CIRCUIT

Ref. No.	Part No.	Part Name & Description	Remarks
HE9700	B4ABA0000009	HALL IC	

RESISTOR

Ref. No.	Part No.	Part Name & Description	Remarks
R9700	EXB38V220JV	ARRAY CHIP 22	

PIN HEADERS

Ref. No.	Part No.	Part Name & Description	Remarks
CN9700	K1KA09AA0051	CONNECTOR 9P	
CN9701	K1MN06BA0113	CONNECTOR 6P	

19.4.8. ELECTRICAL PARTS LOCATED ON CHASSIS

FUSE & PROTECTOR

Ref. No.	Part No.	Part Name & Description	Remarks
F001	LSJA0583	THERMAL FUSE UNIT	⚠